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Identification and characterization of a new member of the TNF family that induces apoptosis.

Wiley SR, Schooley K, Smolak PJ, Din WS, Huang CP, Nicholl JK, Sutherland GR, Smith TD, Rauch C, Smith CA, et al.

Immunex Research and Development Corporation, Seattle, Washington 98101, USA.

A novel tumor necrosis factor (TNF) family member has been cloned and characterized. This protein, designated TNF-related apoptosis-inducing ligand (TRAIL), consists of 281 and 291 aa in the human and murine forms, respectively, which share 65% aa identity. TRAIL is a type II membrane protein, whose C-terminal extracellular domain shows clear homology to other TNF family members. TRAIL transcripts are detected in a variety of human tissues, most predominantly in spleen, lung, and prostate. The TRAIL gene is located on chromosome 3 at position 3q26, which is not close to any other known TNF ligand family members. Both full-length cell surface expressed TRAIL and picomolar concentrations of soluble TRAIL rapidly induce apoptosis in a wide variety of transformed cell lines of diverse origin.

PMID: 8777713 [PubMed - indexed for MEDLINE]

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PMID: 8777713 [PubMed - indexed for MEDLINE]

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L2 1 L1 AND "AIM-1"

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L2 ANSWER 1 OF 1 MEDLINE on STN
2000409432. PubMed ID: 10946438. Reactivity to alcohol-related stimuli in
the laboratory and in the field: predictors of craving in treated
alcoholics. Litt M D; Cooney N L; Morse P. (University of Connecticut
School of Dental Medicine and School of Medicine, Farmington, USA..
litt@nso.uchc.edu) . Addiction (Abingdon, England), (2000 Jun) 95 (6)
889-900. Journal code: 9304118. ISSN: 0965-2140. Pub. country: ENGLAND:
United Kingdom. Language: English.

AB **AIMS:** (1) To search for predictors of alcohol craving
in treated alcoholics; (2) to evaluate the relationship between craving
and drinking immediately after treatment. **DESIGN:** Alcoholic patients in
treatment underwent cue-reactivity **trials** in the laboratory and
then recorded craving in the field using hand-held computers. Laboratory
craving was correlated with craving in the field, and moods and situations
recorded in the field were correlated with contemporaneous craving ratings
using a multi-level correlational design. **SETTING:** A VA Medical Center
substance abuse treatment program provided the treatment and laboratory
settings. The patients' home environment was the field setting.
PARTICIPANTS: Male alcohol-dependent veterans (N = 26) treated in a VA
inpatient or intensive outpatient program. **INTERVENTION:** Participants
underwent two cue-reactivity laboratory sessions prior to discharge to
measure craving. Following discharge, participants recorded drinking and
cravings eight times per day for 21 consecutive days. **MEASUREMENTS:**
Craving ratings in the laboratory and multiple recordings per day of
surroundings, craving and mood state in the field. **FINDINGS:** Desire to
drink in the laboratory accounted for 8-10% of the variance in later
drinking and urges to drink recorded in the field--a modest correlation.
Frequency of positive urges in the field was significantly correlated with
drinking frequency. Those who reported urges in the field had greater
alcohol dependence and higher trait anger and anxiety scores than
non-reporters. **CONCLUSIONS:** Craving is related to drinking immediately

following treatment, and is most likely in those who have more severe dependence and greater mood disturbance. These individuals may benefit most from interventions for coping with cravings after treatment.

=> s apoptosis inducing molecule
L3 120 APOPTOSIS INDUCING MOLECULE

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L4 0 L3 AND "AIM-1"

=> s "AIM-1"
L5 1224 "AIM-1"

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L6 0 L5 AND RUBEN S?/AU

=> s l5 and apoptosis
L7 22 L5 AND APOPTOSIS

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L8 12 DUP REMOVE L7 (10 DUPLICATES REMOVED)

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L8 ANSWER 1 OF 12 MEDLINE on STN DUPLICATE 1
2003317936. PubMed ID: 12847285. Differential susceptibility to staphylococcal superantigen (SsAg)-induced **apoptosis** of CD4+ T cells from atopic dermatitis patients and healthy subjects: the inhibitory effect of IL-4 on SsAg-induced **apoptosis**. Lin Yu-Tsan; Wang Chen-Ti; Hsu Chen-Tong; Wang Li-Fang; Shau Wen-Yi; Yang Yao-Hsu; Chiang Bor-Luen. (Department of Pediatrics, National Taiwan University Hospital, National Taiwan University College of Medicine, Taipei, Taiwan.) Journal of immunology (Baltimore, Md. : 1950), (2003 Jul 15) 171 (2) 1102-8. Journal code: 2985117R. ISSN: 0022-1767. Pub. country: United States. Language: English.

AB This study had two **aims**: 1) to determine whether there are differences between atopic dermatitis (AD) patients and healthy subjects in staphylococcal superantigen (SsAg)-induced CD4(+) T cell activation, cytokine production, chemokine receptor expression, and **apoptosis**; and 2) to investigate the effect of IL-4 on SsAg-induced **apoptosis**. By using immunofluorescence and annexin V staining, we analyzed PBMC with or without staphylococcal enterotoxin B (SEB) stimulation in the presence or absence of rIL-4 or anti-IL-4-neutralizing Abs in 15 healthy subjects and 27 AD patients. We found that SEB preferentially induced production of Th1 cytokine in SEB-reactive (TCRVbeta3(+) or Vbeta12(+) or Vbeta17(+)) CD4(+) T cells from healthy subjects and Th2 cytokine in those from AD patients. SEB induced up-regulation of CXCR3(+) cells in SEB-reactive CD4(+) T cells from healthy subjects and CCR4(+) cells in those from AD patients. SEB-reactive CD4(+) T cells from AD patients were more resistant to SEB-induced **apoptosis** than those from healthy subjects. There was no significant difference between AD and healthy subjects in SEB-induced activation of CD4(+) T cells. CXCR3(+) CD4(+) T cells were more susceptible to SEB-induced **apoptosis** than CCR4(+) CD4(+) T cells in healthy subjects. Exogenously added IL-4 inhibited SEB-induced **apoptosis** of SEB-reactive CD4(+) and CXCR3(+) CD4(+) T cells but not of CCR4(+) CD4(+) T cells in healthy subjects. Inhibition of endogenous IL-4 increased SEB-induced **apoptosis** of SEB-reactive CD4(+) T cells from AD patients. These results might provide new clues to the mechanism that SsAgs contribute to the persistence and exacerbation of allergic skin inflammation in AD.

L8 ANSWER 2 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

2004:155088 Document No.: PREV200400148527. Rituximab induced **apoptosis** "in vitro" on Binet A B-CLL; correlation with CD59/CD20 expression. Sarsotti, Elena [Reprint Author]; Terol, Maria J. [Reprint Author]; Benet, Isabel [Reprint Author]; Martinez-Climent, Jose A. [Reprint Author]; Marugan, Isabel [Reprint Author]; Garcia-Conde, Javier [Reprint Author]. Department Hematology and Medical Oncology, Hospital Clinico Universitario, Valencia, Spain. Blood, (November 16 2003) Vol. 102, No. 11, pp. 861a. print.

Meeting Info.: 45th Annual Meeting of the American Society of Hematology. San Diego, CA, USA. December 06-09, 2003. American Society of Hematology. CODEN: BLOOAW. ISSN: 0006-4971. Language: English.

AB The hallmark of B-cell chronic lymphocytic leukemia (B-CLL) is the impairment of programmed cell death. Rituximab is a chimeric monoclonal antibody directed against the CD20 antigen with proven efficacy on B cell lymphomas. It exerts its lymphoid litic effects through several mechanisms including complement, antibody-dependent citotoxicity and direct **apoptosis** induction. Although CD20 expression is lower in B-CLL than in other B-cell malignancies, Rituximab has shown some degree of activity in these patients. **Aims:** 1)To study the cytotoxicity induced by Rituximab on freshly isolated B cells obtained from Binet stage A, B-CLL patients at diagnosis. 2)To correlate it with IgVH gene mutations as well as with CD20, CD55 and CD59 quantitative expression. 3)To determine the role of CD55 and CD59 antigens on Rituximab-induced **apoptosis**. **Materials and Methods:** Ficoll-Hipaque separated cells from 29 patients were cultured in RPMI1640 with 25% AB serum, for 24 to 48hs with or without Rituximab at a final concentration of 100ug/ml. **Apoptosis** was detected with the Annexin V-FITC **Apoptosis** Detection Kit (BD Biosciences). The absolute number of CD20, CD55 and CD59 molecules pretreatment was measured using DAKO QIFIKIT (DAKO Denmark). The cytotoxic effect obtained was analized in the presence of anti-CD59 and/or anti-CD55 antibodies. Comparison of **apoptosis** and antigen expression between groups was performed by the U-Mann Whitney or the chi square test. **Results:** complement-dependent cytotoxicity >15% (sensitive patients) was observed in cells from 8 of 29 patients (28%). Only 2/11(18%) patients with unmutated IgVH gene (11 out 29) showed **apoptosis**, while 6/18 (33%) patients with mutated IgVH (18 out of 29) did it, (p=0.3). Median quantitative expression of CD20 molecules, for sensitive patients (n=7) was 58.2X103 molecules/cell (range: 34.8-89.9X103), compared with 20.2X103 (range: 11.4-47.9X103) molecules/cell for non-sensitive patients (n=24) p<0.001. Sensitive patients also had a lower number of CD59 molecules (12.8X103 range: 10.9 to 18.4X103) than non-sensitive ones (17.5X103, range: 10.4 to 31.6X103) p=0.04. The ratio of CD59/CD20 best correlated with Rituximab induced cell death (p<0.001). Rituximab induced **apoptosis** at 24hs was further enhanced by blocking with anti-CD59 and/or anti-CD55. The mean increase in cell death was higher in the non-sensitive group of patients in comparison with the others (25.1% vs 15.6%; p=0.05). **Conclusions:** Rituximab is able to induce **apoptosis** in vitro in 28% of Binet AB-CLL cells mainly by complement-mediated cytotoxicity. Rituximab-induced cell death significantly associates with high CD20 expression, and also correlates with the CD59/CD20 ratio. In non-sensitive patients, blocking both CD59 and CD55 antigens increases **apoptosis**.

L8 ANSWER 3 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
2004:123138 Document No.: PREV200400116463. Bile duct injury in response to expression of antigen on the surface of biliary epithelium. Young, Yuki [Reprint Author]; Buxbaum, James [Reprint Author]; Khuu, Ciera [Reprint Author]; Shneider, Benjamin; Allen, Paul M.; Peters, Marion G. [Reprint Author]. UCSF, San Francisco, CA, USA. Hepatology, (October 2003) Vol. 38, No. 4 Suppl. 1, pp. 162A. print.
Meeting Info.: 54th Annual Meeting of the American Association for the Study of Liver Diseases. Boston, MA, USA. October 24-28, 2003. American Association for the Study of Liver Diseases.
ISSN: 0270-9139 (ISSN print). Language: English.

AB Local liver immune responses are thought to play a major role in chronic autoimmune diseases directed at biliary epithelium. Using the apical sodium dependent bile acid transporter (ASBT) promoter to drive biliary epithelial cell -specific expression of a membrane form of ovalbumin (OVA), we have previously developed OVA-BIL transgenic mice. Because these mice are tolerant to OVA, we use OVA-specific T cells from OT-1 and OT-II transgenic mice, restricted by MHC class I and class II, respectively, with well defined peptide epitopes specific for OVA to induce biliary damage in a dose dependent manner. **AIM:**
 1) To determine the liver mononuclear cell populations (MNC) involved in necroinflammatory disease, and 2) to determine where adoptively transferred cells home and proliferate. **METHODS:** 10 million OT-I and 2 million OT-II naive T cells were adoptively transferred to OVA-BIL mice by intraperitoneal injection. At days 0, 5, and 7, liver MNC were isolated by collagenase digestion, purified by discontinuous Percoll gradient centrifugation, and analyzed by flow cytometry. Tail bleeds were performed at days 0, 3, 5, and 7 to follow serum ALT. In a subset of experiments, OT-1 cells were labeled with carboxyfluorescein diacetate succinimidyl ester (CFSE) and analyzed on day 3 and 5 by flow cytometry after adoptive transfer with unlabeled OT-II T cells into OVA-BIL mice. **RESULTS:** OVA-BIL mice develop normally without evidence of disease up to 2 years. After adoptive transfer of OVA-specific T cells, there was a marked increase in serum ALT. CD8+ OT-I T cells were required for liver damage and OVA-specific CD4+ T cells markedly augmented this inflammation. Adoptive transfer of OT-II CD4 T cells alone did not induce liver injury. There was extensive portal inflammation in every portal triad, centered around the bile ducts with infiltrating lymphocytes in the bile duct epithelia, apoptotic cells, loss of biliary epithelial cells as well as interface hepatitis. Liver MNC were abundant in OVA-BIL mice and increased after adoptive transfer of OVA-specific T cells. Serum ALT peaked at day 5 (mean 263 IU/ml), coincident with liver MNC peak. CFSE labeling studies revealed robust homing of adoptively transferred OT-I CD8 cells to the liver, but not to the spleen, of OVA-BIL mice. The OVA-specific CD8 cells, but not CD4, NK1.1, or CD19 cells, underwent cell division. **CONCLUSION:** Recognition of biliary epithelial antigen in OVA-BIL mice induces a necroinflammatory response in the liver as assessed by serum ALT, liver MNC numbers and immunohistochemistry. The magnitude of this response correlates with influx of naive OVA-specific cytotoxic T cells, which are activated and divide in the liver but not in the spleen. T cell recognition of antigen expressed on bile duct epithelium occurs rapidly, causes biliary specific inflammation with interface hepatitis, which may be a model of autoimmune bile duct injury or cholangiopathy.

L8 ANSWER 4 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 2003:568389 Document No.: PREV200300563275. NF-KAPPA B ACTIVATION AND DECREASED CD 19+ B-CELL APOPTOSIS ARE KEY MECHANISMS IN HEPATITIS C VIRUS INFECTION INDUCED LYMPHOMAGENESIS? . Gasztonyi, Beata [Reprint Author]; Kiss, Katalin [Reprint Author]; Par, Alajos [Reprint Author]; Szereday, Laszlo [Reprint Author]; Kereskai, Laszlo [Reprint Author]; Par, Gabiella [Reprint Author]; Mozsik, Gyula [Reprint Author]. Pecs, Hungary. Digestive Disease Week Abstracts and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. M1620. e-file. Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society for Surgery of the Alimentary Tract. Language: English.

AB Background: Hepatitis C virus (HCV) is hepatotropic and lymphotropic agent, infects not only hepatocytes, but monocytes-macrophages, and lymphoid cells, all which may play a role in the persistence of infection and in development of extrahepatic manifestations such as B-cell proliferation and non-Hodgkins lymphoma (NHL). Antiapoptotic effect of the HCV may display via activation of nuclear factor kappa B (NF-kappa B) and can lead to development of hepatocellular carcinoma (HCC) and even B-cell NHL. **Aims:** 1. Activated NF-kappa B was

examined in lymphocytes of patients with HCV infection and NHL. 2. NF-kappa B was detected in liver biopsies of patients with HCC and in lymph nodes of patients with NHL. 3. CD 19+ B-cell **apoptosis** was studied in lymphocytes of patients with HCV infection and with B-cell NHL. Patients and methods: 1. Total 56 patients with chronic hepatitis C, 21 patients with B-cell NHL and 2 HCC patients were studied. We examined the activity of NF-kappa B using electrophoretic mobility shift assay, immunohistochemistry was performed in liver and lymph nodes biopsies. Fluorescein labelled Annexin V flow cytometry was used for the evaluation of **apoptosis**. Results: 1. NF-kappa B activation was found in the lymphocyte extracts from all patients with chronic HCV infection and in 10/13 (76,92%) patients with B-cell NHL. 2. NF-kappa B was detectable in 7/8 cases in liver biopsies from HCV positive patients. Strong reaction was detected in nuclei in HCV positive HCC and NHL patients (no reaction in HCV negative biopsies). 3. Decreased B-cell **apoptosis** was detected in 31/38 (81,57%) HCV patients and in 6/6 (100%) NHL patients. Conclusions: NF-kappa B activation together with decreased CD 19+ B-cell **apoptosis**, mechanisms by which the virus may play a role in the lymphomagenesis. The study was supported by the grant of Hungarian Ministry of Health (ETT-34/2000)..

L8 ANSWER 5 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
2003:568570 Document No.: PREV200300563430. TNFalpha-INDUCED HEPATOCYTE
APOPTOSIS IS ASSOCIATED WITH S-PHASE BLOCK AND DECREASED STEM-LOOP
BINDING PROTEIN . Black, Dalliah [Reprint Author]; Schrum, Laura [Reprint
Author]; Lyman, Suzanne [Reprint Author]; Behrns, Kevin [Reprint Author].
Chapel Hill, NC, USA. Digestive Disease Week Abstracts and Itinerary
Planner, (2003) Vol. 2003, pp. Abstract No. M1373. e-file.
Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003.
American Association for the Study of Liver Diseases; American
Gastroenterological Association; American Society for Gastrointestinal
Endoscopy; Society for Surgery of the Alimentary Tract.
Language: English.

AB Background: Tumor necrosis factor alpha (TNFalpha) induces hepatocyte
apoptosis in the presence of nuclear factor kappa B (NFkappaB)
inhibition. Morphologic changes of TNFalpha-induced hepatocyte
apoptosis occur over a prolonged time period (24 hours) suggesting
that alterations in the cell cycle may precede **apoptosis**.
Aim: (1) Determine if TNFalpha-induced hepatocyte
apoptosis is preceded by changes in the cell cycle. (2) Assess the
role of stem-loop binding protein (SLBP), a mediator of cell cycle
progression, in TNFalpha-induced cell cycle alterations. Methods: Primary
hepatocytes were isolated from BALB/c mice by retrograde collagenase
perfusion. After plating the cells, recombinant adenoviruses (luciferase
(AdLuc) or IkappaB super-repressor (AdIkappaB)) were administered at a
multiplicity of infection of 30 for 2 hours. Hepatocytes were then
treated with or without TNFalpha (30 ng/ml) for 0, 6, 9, 12, 14, 17, and
23 hours. Cells were fixed and stained with propidium iodide for FACS
analysis to determine cell cycle progression and **apoptosis**.
Western blot analysis of SLBP was performed by preparing whole cell
extracts at 0, 9, 14, and 17 hours. Results: AdIkappaB/ TNFalpha-treated
hepatocytes demonstrated a significant increase in S-phase hepatocytes (6%
+/- 2% vs. 14% +/- 3%) compared to control at 14 hours. At 9 hours, the
AdLuc and AdLuc/ TNFalpha groups demonstrated increased SLBP consistent
with cell cycle progression. However, both the AdIkappaB and AdIkappaB/
TNFalpha groups had decreased SLBP levels at 9, 14, and 17 hours. The
AdIkappaB/ TNFalpha group had increased **apoptosis** compared to
control. Conclusions: TNFalpha-mediated hepatocyte **apoptosis** is
associated with S-phase arrest and decreased SLBP. These data suggest
that the TNFalpha-induced apoptotic pathway is necessary for S-phase cell
cycle arrest; therefore, **apoptosis** appears to be the primary
mechanism of TNFalpha-mediated hepatocyte growth control..

L8 ANSWER 6 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
2003:583417 Document No.: PREV200300573225. EFFECT OF PPARGAMMA LIGANDS ON IN

VITRO AND IN VIVO GROWTH OF GASTRIC CANCER . Leung, Wai K. [Reprint Author]; Bai, Alfa H.; Chan, Victor Y.; Yu, Jun; Chan, Ka-Kui; To, Ka-Fai; Go, Minnie Y.; Wu, Kai-chun; Chan, Francis K.; Wu, Jia-Rui; Sung, Joseph J.. Hong Kong, China. Digestive Disease Week Abstracts and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. T959. e-file.
Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society for Surgery of the Alimentary Tract.
Language: English.

AB Background: Activation of peroxisome proliferator-activated receptor (PPAR)gamma, a member of the nuclear hormone receptor superfamily, has been implicated in cellular differentiation and growth inhibition. However, the role of PPARGamma in gastric carcinogenesis is less clear.
Aim: 1. To examine the in vitro and in vivo effects of PPARGamma ligands on the growth of gastric cancer cells. 2. To evaluate the effect of PPARGamma activation on the expressions of COX-2 and apoptotic related genes in gastric cancer cells. Methods: MKN45 gastric cell line that expressed PPARGamma was treated with two specific PPARGamma ligands: ciglitazone (Cig) and 15-deoxy-12,14-prostaglandin J2 (PGJ2). Cell growth was determined by BrdU incorporation and **apoptosis** by amount of cytoplasmic histone associated DNA fragments and flow cytometry. In vivo growth of implanted MKN45 cells in nude mice was monitored after oral treatment with rosiglitazone (6mg/kg/day) or vehicle control for up to 7 weeks (8/group). Expression of COX-2 was determined by Western blot and real-time quantitative PCR. Expression profiles of apoptotic related genes were screened by cDNA array (Superarray) and genes with altered expression were further examined by real-time quantitative PCR. Results: Treatment with PPARGamma ligands (PGJ2 and Cig) inhibited the in vitro growth of MKN45 cells in a dose dependent manner whereas treatment with carboprostacyclin, a PPAR' agonist, had no inhibitory effect on growth. In vivo growth of MKN45 cells in nude mice was retarded by oral treatment with rosiglitazone. The differences in mean tumor volume were significantly lower than vehicle control at 6 weeks (49+-55 vs 166+-73mm³, p = 0.019) and 7 weeks (34+-34 vs 226+-107mm³, p=0.001) after treatment. Cig (20uM) and PGJ2 (10uM) induced DNA fragmentation and accumulation of cells in subG1 phase. Treatments with both agents at this dosage were associated with about 50% reduction in COX-2 mRNA and protein expression. Screening of expression profiles of a panel of apoptotic related genes in MKN45 cells by cDNA microarray showed that treatments with PPARGamma ligands were associated with up-regulation of caspase 9 and down-regulation of bcl-2, bcl-xl and TNFalpha. Altered expressions of these genes were confirmed by quantitative real-time PCR. Conclusions: PPARGamma ligands suppress growth of gastric cancer in vitro and in vivo in association with induction of **apoptosis** and down-regulation of COX-2 and Bcl2 family. These results support the chemopreventive and therapeutic potentials of PPARGamma ligands on gastric cancer..

L8 ANSWER 7 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 2004:26235 Document No.: PREV200400024621. ETHANOL SIGNATURE ON
APOPTOSIS IN VITRO . Katz, Gady [Reprint Author]; Malkiewicz, Izabe; Valentino, Karen; Neuman, Manuela G.. Toronto, ON, Canada. Digestive Disease Week Abstracts and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. T885. e-file.
Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society for Surgery of the Alimentary Tract.
Language: English.

AB **Aims:** 1-To assess the mechanism by which ethanol (EtOH) is signaling for **apoptosis** in a- normal human primary hepatocyte (NHPH) culture and b- co-culture of NHPH with stellate cells (NHPHSC); 2-To delineate the role of tumor necrosis factor alpha (TNFalpha) antibody (anti-TNF) and caspase-9 and 3 inhibitors (CAPI) in cell protection against **apoptosis**. Stellate cells (SC), NHPH and

NHPHSC treated for 24 hours, either with 100 mM EtOH or 30 pg/mL TNF α , **apoptosis** was assessed by ELISA, which quantitates histones associated with DNA cleavage at the internucleosomal linker region, and by transmission electron microscopy. In a second set of experiments, prior to the same treatment, cells were exposed to 5 nM CAPIs or 30 pg/mL anti-TNF. **Apoptosis** was assessed in 6 flasks (6000 cells/flask) and 30 wells. We also measured the cytochrome oxidase activity with the diaminobenzidine immunochemistry technique. Fas (APO-1, CD95) molecules on the plasma membrane of cells increased and were represented immunohistochemically in cells without chromatin condensation. ANOVA was used for statistical analysis and the values are given as mean % apoptotic cells or bodies \pm SD. As shown by this data in NHPH, **apoptosis** in TNF α treated cells is abolished by anti-TNF. Cells are protected against EtOH-induced **apoptosis** by pre-treatment with anti-TNF and CAPIs. In early stage of **apoptosis** was a rupture of the outer mitochondrial membrane. The cells may be "true" apoptotic with condensed chromatin and high enzyme activity (10%), pre-apoptotic, without chromatin condensation but high enzyme activity (35%), and neither condensed chromatin nor a remarkable reaction product of cytochrome oxidase activity (55%). Fas molecules on the plasma membrane of hepatocytes increased in cells without chromatin condensation. The NHPHSC present many SC with huge amount of lipids, that transforms in myofibroblast and some apo-necrotic cells are seen. In conclusion NHPHSC are more susceptible to EtOH-induced **apoptosis** than NHPH. Both anti-TNF and CAPIs might inhibit hepatic **apoptosis** but their signature differs with the type of cells. Mitochondria play a pivotal role in pre-apoptotic stages..

L8 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

2001:354388 Document No. 135:105661 Growth and gene expression profile analyses of endometrial cancer cells expressing exogenous PTEN. Matsushima-Nishiu, Mieko; Unoki, Motoko; Ono, Kenji; Tsunoda, Tatsuhiko; Minaguchi, Takeo; Kuramoto, Hiroyuki; Nishida, Masato; Satoh, Toyomi; Tanaka, Toshihiro; Nakamura, Yusuke (Laboratories of Molecular Medicine, Human Genome Center, Institute of Medical Science, The University of Tokyo, Tokyo, 108-8639, Japan). Cancer Research, 61(9), 3741-3749 (English) 2001. CODEN: CNREA8. ISSN: 0008-5472. Publisher: American Association for Cancer Research.

AB The PTEN tumor suppressor gene encodes a multifunctional phosphatase that plays an important role in inhibiting the phosphatidylinositol-3-kinase pathway and downstream functions that include activation of Akt/protein kinase B, cell survival, and cell proliferation. Enforced expression of PTEN in various cancer cell lines decreases cell proliferation through arrest of the cell cycle, accompanied in some cases by induction of **apoptosis**. We used cDNA microarrays containing 4009 cDNAs to examine changes in gene-expression profiles when exogenous PTEN was induced in PTEN-defective cells. The microarrays and subsequent semiquant. reverse transcription-PCR anal. revealed transcriptional stimulation of 99 genes and repression of 72 genes. Some of the differentially expressed genes already had been implicated in cell proliferation, differentiation, **apoptosis**, or cell cycle control, e.g., overexpression of PTEN-induced transactivation of cyclin-dependent inhibitor 1B (p27Kip1) and 2B (p15INK4B), members of the TNF receptor family, tumor necrosis factor-associated genes, and members of the Notch-signaling and Mad families. To our knowledge this is the first report of transactivation of those genes by PTEN. The genes differentially expressed in our expts. also included many whose correlation with cancer development had not been recognized before. Our data should contribute to a greater understanding of the broad spectrum of ways in which PTEN affects intracellular signaling pathways. Anal. of expression profiles with microarrays appears to be a powerful approach for identifying anticancer genes and/or disease-specific targets for cancer therapy.

L8 ANSWER 9 OF 12 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
2002:199022 Document No.: PREV200200199022. Endomitotic megakaryocytes (MKs)

express the anaphase proteins survivin and **AIM-1/STK-1** and they are localized to the spindle and kinetochore. Geddis, Amy E. [Reprint author]; Lin, Nancy [Reprint author]; Kaushansky, Kenneth [Reprint author]. Hematology, University of Washington, Seattle, WA, USA. Blood, (November 16, 2001) Vol. 98, No. 11 Part 1, pp. 554a-555a. print. Meeting Info.: 43rd Annual Meeting of the American Society of Hematology, Part 1. Orlando, Florida, USA. December 07-11, 2001. American Society of Hematology.

CODEN: BLOOAW. ISSN: 0006-4971. Language: English.

AB Endomitotic cell cycling in maturing MKs is characterized by a failure to complete mitosis; subsequent reinitiation of DNA synthesis results in large polyploid cells. The role of proteins such as survivin and **AIM-1/STK-1** in regulating exit from mitosis in diploid cells is beginning to be understood but it is not known how these proteins might differ in endomitotic MKs. Survivin is a member of the inhibitor of **apoptosis** family of proteins, while **AIM-1/STK-1** is a member of the aurora kinase type B family. Immunofluorescent studies have shown that survivin is localized to the kinetochore in early mitosis, the spindle pole in anaphase, and the central spindle or midbody in late anaphase and telophase, whereas **AIM-1/STK-1** is reported to localize to the central spindle and midbody and to colocalize with survivin. Thus, the localization of these proteins suggests that they might regulate late anaphase events such as spindle elongation and cytokinesis that are atypical in endomitosis. In addition, studies performed in yeast, drosophila, and mammalian embryos have shown that interference with survivin and **AIM-1/STK-1** results in defects in cytokinesis and polyploidy. Recently, two groups (Kawasaki et al., J Cell Biol 2001 152: 275-287, and Zhang et al., Biochem Biophys Res Commun 2001 282: 844-849) have hypothesized that deficiency of **AIM-1/STK-1** may be responsible for endomitosis in MKs and reported that **AIM-1** RNA is decreased in polyploidizing MK cell lines and MKs. To further investigate this hypothesis, in this work we examined the localization of survivin and **AIM-1/STK-1** in primary mouse MKs by confocal microscopy and compared it to that seen in a diploid hematopoietic cell line (BaF3/Mpl). We find that 1) survivin and **AIM-1/STK-1** are both present in endomitotic MKs and can be observed to localize to the region of the spindle and kinetochore, respectively; 2) in contrast to diploid cells where localization of these proteins to the central spindle and midbody is observed, staining representing a central spindle or midbody is not observed in endomitotic megakaryocytes; and 3) the function of **AIM-1/STK-1**, as measured by phosphorylation of its substrate histone H3 on serine10, appears to be intact in endomitotic MKs. These results suggest that endomitotic MKs contain functional survivin and **AIM-1/STK-1** in early anaphase, making a simple deficiency of these proteins an unlikely explanation for polyploidy in MKs. The failure to observe localization of these proteins to the central spindle and midbody may reflect the failure of MKs to progress to late anaphase and telophase as other midbody-associated proteins such as INCENP also do not show midbody localization in MKs. Alternate explanations of endomitosis must be sought, perhaps involving other kinases or motor proteins responsible for events in late anaphase. Ongoing studies are examining the localization of some of these proteins.

L8 ANSWER 10 OF 12 MEDLINE on STN DUPLICATE 2
2000390689. PubMed ID: 10888774. Prognostic factors in prostate cancer. College of American Pathologists Consensus Statement 1999. Bostwick D G; Grignon D J; Hammond M E; Amin M B; Cohen M; Crawford D; Gospadarowicz M; Kaplan R S; Miller D S; Montironi R; Pajak T F; Pollack A; Srigley J R; Yarbrow J W. (Bostwick Laboratories, Richmond, VA, USA.) Archives of pathology & laboratory medicine, (2000 Jul) 124 (7) 995-1000. Ref: 102. Journal code: 7607091. ISSN: 0003-9985. Pub. country: United States. Language: English.

AB BACKGROUND: Under the auspices of the College of American Pathologists, a multidisciplinary group of clinicians, pathologists, and statisticians

considered prognostic and predictive factors in prostate cancer and stratified them into categories reflecting the strength of published evidence and taking into account the expert opinions of the Prostate Working Group members. MATERIALS AND METHODS: Factors were ranked according to the previous College of American Pathologists categorical rankings: category I, factors proven to be of prognostic importance and useful in clinical patient management; category II, factors that have been extensively studied biologically and clinically but whose importance remains to be validated in statistically robust studies; and category III, all other factors not sufficiently studied to demonstrate their prognostic value. Factors in categories I and II were considered with respect to variations in methods of analysis, interpretation of findings, reporting of data, and statistical evaluation. For each factor, detailed recommendations for improvement were made. Recommendations were based on the following aims: (1) increasing uniformity and completeness of pathologic evaluation of tumor specimens, (2) enhancing the quality of data collected pertaining to existing prognostic factors, and (3) improving patient care. RESULTS AND CONCLUSIONS: Factors ranked in category I included preoperative serum prostate-specific antigen level, TNM stage grouping, histologic grade as Gleason score, and surgical margin status. Category II factors included tumor volume, histologic type, and DNA ploidy. Factors in category III included perineural invasion, neuroendocrine differentiation, microvessel density, nuclear roundness, chromatin texture, other karyometric factors, proliferation markers, prostate-specific antigen derivatives, and other factors (oncogenes; tumor suppressor genes, **apoptosis** genes, etc).

L8 ANSWER 11 OF 12 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 1998:572818 The Genuine Article (R) Number: 102MG. Coexpression of p53 and tissue transglutaminase genes in human normal and pathologic adrenal tissues. Adleff V; Racz K (Reprint); Szende B; Toth M; Moldvay J; Varga I; Bezzegh A; Szegedi Z; Glaz E. SEMMELWEIS UNIV SCH MED, DEPT MED 2, GASTROENTEROL & ENDOCRINOL RES UNIT, BUDAPEST, HUNGARY (Reprint); SEMMELWEIS UNIV SCH MED, DEPT MED 2, GASTROENTEROL & ENDOCRINOL RES UNIT, BUDAPEST, HUNGARY; SEMMELWEIS UNIV SCH MED, INST PATHOL & EXPT CANC RES 1, BUDAPEST, HUNGARY; NATL INST ONCOL, BYK GULDEN REFERENCE LAB, BUDAPEST, HUNGARY. JOURNAL OF STEROID BIOCHEMISTRY AND MOLECULAR BIOLOGY (JUL 1998) Vol. 66, No. 1-2, pp. 27-33. Publisher: PERGAMON-ELSEVIER SCIENCE LTD. THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND. ISSN: 0960-0760. Pub. country: HUNGARY. Language: English.
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The presence of p53 and tissue transglutaminase (tTG) gene expressions was investigated in human normal and pathologic adrenal tissues with two aims (1) to determine the tissue content of p53 protein, its messenger ribonucleic acid (mRNA) and, especially, tTG mRNA which has not been previously reported and (2) to study possible differences in the coexpression of p53 and tTG in various adrenal disorders. Using Northern blot analysis, p53 and tTG mRNAs were detected in each adrenal tissue examined including 5 normal human adrenals, 6 aldosterone-producing adenomas, 3 Cushing's adenomas, 1 primary nodular adrenocortical hyperplasia causing Cushing's syndrome in an infant, 12 non-hyperfunctioning adrenocortical adenomas, and 4 adrenocortical carcinomas. The results showed a significant positive correlation between these two mRNAs in all adrenal tissues except adrenocortical carcinomas. Compared to normal adrenals, high p53 mRNA levels were observed in aldosterone-producing and Cushing's adenomas and, most markedly, in a tissue from a primary nodular adrenocortical hyperplasia. Also, Cushing's adenomas had significantly higher tTG mRNA contents. Immunohistochemistry for wild-type and mutant p53 protein showed numerous p53 positive cells with a strong nuclear staining in a tissue from a primary nodular adrenocortical hyperplasia, whereas the p53 positive cells were absent, except those with a faint nuclear staining, in all other adrenal tissues. However, all adrenal tissues showed detectable p53 contents by the more sensitive method of luminometric immunoassay (LIA). Using this method, aldosterone-producing adenomas exhibited significantly higher p53 contents

than normal adrenal tissues. These observations may support potentially important roles for p53 and tTG in adrenal pathophysiology, especially in mechanisms which influence the evolution and/or progression of aldosterone-producing and Gushing's adenomas and, most probably, hyperplasias. (C) 1998 Elsevier Science Ltd. All rights reserved.

L8 ANSWER 12 OF 12 MEDLINE on STN DUPLICATE 3
1998056742. PubMed ID: 9394760. Helicobacter pylori, inflammation, mucosal damage, and **apoptosis**: pathogenesis and definition of gastric atrophy. Genta R M. (Veterans Affairs Medical Center, Houston, Texas, USA.. rmgenta@bcm.tmc.edu) . Gastroenterology, (1997 Dec) 113 (6 Suppl) S51-5. Ref: 28. Journal code: 0374630. ISSN: 0016-5085. Pub. country: United States. Language: English.

AB Much of what is currently accepted on the natural history of Helicobacter pylori-induced gastritis and its relationship with gastric adenocarcinoma rests on the assumption that atrophic gastritis can be correctly identified and reproducibly recognized. Recently, several studies have indicated that pathologists have a low level of agreement on this topic, and the terms "gastric atrophy" and "atrophic gastritis" remain imprecisely defined and, therefore, poorly understood. Furthermore, the genesis and progression of the atrophic changes taking place in the gastric mucosa of some, but not all, subjects infected with H. pylori are incompletely characterized. This review has three **aims**: (1) to briefly reexamine our current knowledge of the mechanisms involved in the injury and repair of gastric glands; (2) to present a hypothesis on the development of gastric atrophy; and (3) to propose a new, stringent definition of gastric atrophy that may be usefully applied in the clinical research arena.

=> s human TRAIL

L9 373 HUMAN TRAIL

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L10 320 L9 AND APOPTOSIS

=> dup remove l10

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L11 182 DUP REMOVE L10 (138 DUPLICATES REMOVED)

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L13 21 L11 AND FUSION

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L14 21 DUP REMOVE L13 (0 DUPLICATES REMOVED)

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L14 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2003:511519 Document No. 139:83980 Antibodies specific to TRAIL receptors for diagnosis, prognosis and treatment of neoplastic, neurodegenerative, inflammatory, infectious and immune diseases. Salcedo, Theodora; Albert, Vivian R.; Rosen, Craig A.; Humphreys, Robin; Vaughan, Tristan John (Human Genome Sciences, Inc., USA). PCT Int. Appl. WO 2003054216 A2 20030703, 301 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR,

IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English).
CODEN: PIXXD2. APPLICATION: WO 2002-US40597 20021219. PRIORITY: US
2001-PV341237 20011220; US 2002-PV369877 20020405; US 2002-PV384828
20020604; US 2002-PV396591 20020718; US 2002-PV403370 20020815; US
2002-PV425737 20021113.

AB The present invention relates to antibodies and related mols. that immunospecifically bind to TRAIL receptor, TR7. Such antibodies have uses, for example, in the prevention and treatment of cancers and other proliferative disorders. The invention also relates to nucleic acid mols. encoding anti-TR7 antibodies, vectors and host cells containing these nucleic acids, and methods for producing the same. The present invention relates to methods and compns. for preventing, detecting, diagnosing, treating or ameliorating a disease or disorder, especially cancer and other hyperproliferative disorders, comprising administering to an animal, preferably a human, an effective amount of one or more antibodies or fragments or variants thereof, or related mols., that immunospecifically bind to TRAIL receptor TR7.

L14 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
2003:356464 Document No. 138:367590 Humanized antibodies specific to human TRAIL receptor DR4 and DR5 for treating apoptosis-related, cancerous, inflammatory and autoimmune diseases. Zhou, Tong; Kimberly, Robert P.; Koopman, William J.; Lobuglio, Albert F.; Buchsbaum, Donald J. (UAB Research Foundation, USA). PCT Int. Appl. WO 2003037913 A2 20030508, 251 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-US35333 20021101. PRIORITY: US 2001-PV346402 20011101.

AB An antibody of the invention interacts with human DR5 or with human DR4 to produce agonistic or antagonistic effects downstream of the receptor including inhibition of cell proliferation and **apoptosis**. Nucleic acid sequences and amino acid sequences of DR5 and DR4 antibodies have been elucidated and vectors and cells containing and expressing these sequences have been generated. Methods and uses for the antibodies are detailed including treatment of **apoptosis**-related disease and treatment of dysregulated cell growth.

L14 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
2003:971274 Document No. 140:26915 Antibodies immunospecific to TRAIL receptor TR4 for diagnosis and treatment of neoplastic and other proliferative disorders. Salcedo, Theodora; Roschke, Viktor; Rosen, Craig A.; Ruben, Steven M. (USA). U.S. Pat. Appl. Publ. US 2003228309 A1 20031211, 161 pp., Cont.-in-part of U.S. Ser. No. 986,149. (English). CODEN: USXXCO. APPLICATION: US 2002-292486 20021113. PRIORITY: US 2000-PV246612 20001108; US 2000-PV248847 20001116; US 2000-PV252904 20001127; US 2001-PV295018 20010604; US 2001-PV327359 20011009; US 2001-986149 20011107; US 2001-PV331309 20011114; US 2002-PV377973 20020507; US 2002-PV403376 20020815.

AB The present invention relates to antibodies and related mols. that immunospecifically bind to cytokine receptor TRAIL (TNF-related **apoptosis**-inducing ligand) TR4, relative to its ability to bind TR5, TR7 and TR10. Such antibodies have uses, for example, in the prevention and treatment of cancers and other proliferative disorders. The invention also relates to nucleic acid mols. encoding anti-TRAIL receptor antibodies, vectors and host cells containing these nucleic acids, and methods for producing the same. The present invention relates to methods and compns. for preventing, detecting, diagnosing, treating or ameliorating a disease or disorder, especially cancer and other hyperproliferative disorders, comprising administering to an animal,

preferably a human, an effective amount of one or more antibodies or fragments or variants thereof, or related mols., that immunospecifically bind to TRAIL receptor.

L14 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2003:876997 Document No. 140:198084 Monoclonal antibody specific to **human TRAIL**-human death receptor 5 **fusion** protein for inducing **apoptosis** of cancer cells. Lin, Lin; Meng, Lu (Peop. Rep. China). Faming Zhuanli Shenqing Gongkai Shuomingshu CN 1388135 A 20030101, 4 pp. (Chinese). CODEN: CNXXEV. APPLICATION: CN 2001-134545 20011107.

AB The monoclonal antibody against **fusion** protein comprising **human TRAIL** and human death receptor 2 (DR5/R2) is prepared by immunizing mice with DR5-hIgG1 **fusion** protein, fusing the splenocytes harvested from the immunized mice with mouse myeloma cell NS1 to obtain hybridoma, screening, expanding in vivo or in vitro, and purifying the secreted monoclonal antibody by affinity chromatog. The monoclonal antibody may be used for study of the mechanism of TRAIL to induce **apoptosis** of cancer cells and the function of DR5, for detection of carcinogenesis and for use as antitumor agent.

L14 ANSWER 5 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

2003:339312 Document No.: PREV200300339312. Cell to cell contact required for bystander effect of the TNF-related **apoptosis**-inducing ligand (TRAIL) gene. Huang, Xuefeng; Lin, Tongyu; Gu, Jian; Zhang, Lidong; Roth, Jack A.; Liu, Jinsong; Fang, Bingliang [Reprint Author]. Department of Thoracic and Cardiovascular Surgery, The University of Texas M.D. Anderson Cancer Center, 1515 Holcombe Boulevard, Box 445, Houston, TX, 77030, USA. bfang@mdanderson.org. International Journal of Oncology, (June 2003) Vol. 22, No. 6, pp. 1241-1245. print. ISSN: 1019-6439 (ISSN print). Language: English.

AB We have previously reported that direct transfer of the TNF-related **apoptosis**-inducing ligand (TRAIL) gene resulted in an apoptotic bystander effect, and that this bystander effect was not transferable with cell culture media. To further characterize its mechanism we tested the bystander effect of TRAIL in the human ovarian cancer cell line DOV13, human lung cancer cell line A549, human hepatoma cell line Hepa G2, human breast cancer cell line MDA-MB231 and human colon cancer cell lines Lovo and DLD1. The bystander target cells were transduced with an adenovector expressing the lacZ gene (Ad/CMV-LacZ), while the effector cells were transduced with an adenovector expressing the green fluorescent protein (GFP)/TRAIL **fusion** gene. Effector and target cells were then cocultured in the same well with or without effector and target cell contact. In all the cell lines tested, target cells were killed if effector and target cell contact was permitted. However, no bystander effect occurred if effector and target cell contact was prevented. Furthermore, the bystander effect and **apoptosis** induction of TRAIL was dramatically reduced if cells were seeded at a very low density. Moreover, in all the cell lines tested, no detectable soluble TRAIL was found in media from the TRAIL-expressing cell cultures. Together, our results demonstrated that release of soluble TRAIL from transfer of the wild-type TRAIL gene is minimal, and that the bystander effect of the TRAIL gene is mainly mediated by membrane-bound TRAIL on the surface of transduced cells.

L14 ANSWER 6 OF 21 MEDLINE on STN

2003526858. PubMed ID: 14605667. Enhanced **apoptosis** of glioma cell lines is achieved by co-delivering FasL-GFP and TRAIL with a complex Ad5 vector. Rubinchik Semyon; Yu Hong; Woraratanadharm Jan; Voelkel-Johnson Christina; Norris James S; Dong Jian-yun. (Department of Microbiology and Immunology, Medical University of South Carolina, 173 Ashley Avenue, BSB 201, Charleston, SC 29403, USA.) Cancer gene therapy, (2003 Nov) 10 (11) 814-22. Journal code: 9432230. ISSN: 0929-1903. Pub. country: England: United Kingdom. Language: English.

AB Brain tumors (BTs) are among the most malignant forms of human cancer.

Unfortunately, current treatments are often ineffective and produce severe side effects. Cytotoxic gene therapy is an alternative treatment strategy, with the potential advantages of reduced toxicity to normal brain tissue. **Apoptosis**-inducing "death ligands" Fas ligand and TNF-related **apoptosis**-inducing ligand (TRAIL) are genes with substantial cytotoxic activity in susceptible tumor cells. Here, we compared the effectiveness of Ad vector-mediated delivery of Fas ligand-green fluorescent protein (FasL-GFP) **fusion** protein, **human TRAIL**, and both genes simultaneously. We examined a panel of 13 cell lines (eight derived from primary isolates) for susceptibility to Ad5-based vector infection and for sensitivity to FasL- and TRAIL-mediated **apoptosis**. All cell lines were efficiently transduced, but, as expected, varied in their sensitivity to ligand-induced **apoptosis**. Generally, sensitivity to FasL-GFP correlated with cell surface FasR levels, but no such correlation was seen for TRAIL and its functional receptors, DR4 and DR5. The vector expressing both FasL-GFP and TRAIL was more effective than either of the single-gene vectors at comparable transduction levels, and it was effective against a broader range of cell lines. In five cell lines, coexpression resulted in **apoptosis** levels greater than those predicted for strictly additive activity of the two death ligands. We believe that Ad vector-mediated delivery of multiple death ligands may be developed as a potential BT therapy, either alone or in conjunction with surgical resection of the primary tumor.

L14 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
 2002:778082 Document No. 137:293569 Antibodies that immunospecifically bind to TRAIL receptors. Salcedo, Theodora; Roschke, Victor; Ruben, Steven M.; Rosen, Craig A. (Human Genome Sciences, Inc., USA). PCT Int. Appl. WO 2002079377 A2 20021010, 376 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US42996 20011107. PRIORITY: US 2000-PV246612 20001108; US 2000-PV248847 20001116; US 2000-PV252904 20001127; US 2001-PV295018 20010604; US 2001-PV327359 20011009.

AB The authors disclose antibodies that specifically bind to TRAIL receptors. The antibodies, generated in XenoMouse, were shown to bind to tumor cell lines and effect **apoptosis**.

L14 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
 2002:220654 Document No. 136:257227 AMAICE (antibody-mediated **apoptosis** inducing cytokine), its production with recombinant cells, and its use as antitumor or immunomodulator. Pfizenmaier, Klaus; Wajant, Harald; Moosmayer, Dieter; Wueest, Thomas (Germany). PCT Int. Appl. WO 2002022680 A2 20020321, 45 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (German). CODEN: PIXXD2. APPLICATION: WO 2001-EP10364 20010907. PRIORITY: DE 2000-10045591 20000915.

AB The invention relates to antibody-cytokine **fusion** proteins having proapoptotic and immunomodulating properties, however, a priori having a specific bioactivity in the cytokine portion that is very low or limited to certain receptor subtypes. These reagents first deploy the full biol. activity after an antibody-mediated binding of the

fusion protein to a specific, cell membrane-expressed target mol. By appropriately selecting the antibody specificity, the cytokine activity is directed to the target tissue, e.g. tumor tissue, and a therapeutic agent can be produced, which is specifically matched to/optimized for the resp. indication/tumor entity. Thus, a **fusion** protein comprising an anti-fibroblast activation protein (FAP) scFv fused to the CH3 domain and hinge region of a human IgG1 fused to the extracellular domain of **human TRAIL** was prepared with recombinant CHO cells. This AMAICE induced **apoptosis** of FAP-pos. tumor cells.

L14 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
2002:751843 Correction of: 2002:696694 Document No. 137:243715 Correction of: 137:197340 Secretable recombinant trimeric TRAIL proteins expressed using Tet-On system and construction of related DNA cassette and AAV vectors useful for cancer gene therapy. Seol, Dai-Wu; Billiar, Timothy R. (S. Korea). U.S. Pat. Appl. Publ. US 2002128438 A1 20020912, 32 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-900530 20010706. PRIORITY: KR 2000-38441 20000706.

AB The present invention relates to the construction of a TRAIL DNA cassette for the production of a secretable trimeric rTRAIL, the development of pCMVdw vectors and pAAVdw vectors harboring a feed-forward amplification loop type Tet-On system that can be packaged into AAV particles, the preparation of a recombinant vectors by the combination of the TRAIL DNA cassette and the two vectors, and the treatment of diseases including cancer using such vectors. The present invention provides a TRAIL DNA cassette comprising a secretion signal (SS) sequence, a trimer-forming domain (TFD) and a TRAIL(114-281) coding cDNA. The secretion signal sequence, fused to TRAIL protein, is either SEC2 derived from fibrillin-1 and SEC(CV) from human growth hormone. A furin-specific cleavage sequence is added to the carboxyl terminus of secretion signal peptide to facilitate its cleavage and minimize immune response. An artificial trimer-forming domain (TFD), such as an isoleucine zipper (ILZ) - a variant of a GCN4 leucine zipper, is also fused to recombinant TRAIL protein to enable trimeric TRAIL formation. TRAIL, specifically amino acid 114-281 region capable inducing **apoptosis** in many target cells, is expressed in **fusion** of above secretion signal sequence, cleavage site and trimer-forming domain. The TRAIL cassette thus constructed can be cloned into an appropriate expression vector, and subsequently used in the mass production of a secretable recombinant trimeric TRAIL protein or administered to a patient for a gene therapy. Various plasmid vectors are constructed and tested for functional expression of the secreted recombinant TRAIL protein. Various epitope tags are also fused into the recombinant TRAIL proteins to facilitate their detection. In recombinant AAV vector, the SEC2ILZTRAIL(114-281) or SEC(CV)ILZTRAIL(114-281) cassette is under the control of tet operator so that its expression can be induced by introducing tTA or rtTA expression vector, which will bind to tetracycline or doxycycline to activate tet operator. The apoptotic activity of recombinant **human TRAIL**(114-281) protein is significantly enhanced by actinomycin D.

L14 ANSWER 10 OF 21 MEDLINE on STN
2002353959. PubMed ID: 12097263. Targeted expression of green fluorescent protein/tumor necrosis factor-related **apoptosis**-inducing ligand **fusion** protein from human telomerase reverse transcriptase promoter elicits antitumor activity without toxic effects on primary human hepatocytes. Lin Tongyu; Gu Jian; Zhang Lidong; Huang Xuefeng; Stephens L Clifton; Curley Steven A; Fang Bingliang. (Department of Thoracic and Cardiovascular Surgery, The University of Texas M. D. Anderson Cancer Center, Houston, Texas 77030, USA.) Cancer research, (2002 Jul 1) 62 (13) 3620-5. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Liver toxicity is the major concern for use of recombinant human tumor necrosis factor-related **apoptosis**-inducing ligand (TRAIL) proteins in treatment of cancers. Here we report that normal human primary hepatocytes (NHPHs) are susceptible to the transduction of the

wild-type, full-length coding sequence of the **human TRAIL** gene. To minimize potential toxicity of the TRAIL gene, a bicistronic adenoviral vector that expresses the green fluorescent protein/TRAIL **fusion** protein from the human telomerase reverse transcriptase promoter (designated Ad/gTRAIL) was constructed. In vitro and in vivo studies have showed that treatment with the adenoviral vector Ad/gTRAIL results in high-level expression of green fluorescent protein/TRAIL in cancer cells but no detectable transgene expression in NHPHs or in normal mouse liver tissues. Furthermore, treatment with Ad/gTRAIL effectively elicited **apoptosis** in malignant cells but not in NHPHs in vitro and suppressed tumor growth and prolonged duration of survival in vivo. Thus, with the combined advantages of the TRAIL gene and the human telomerase reverse transcriptase target, Ad/gTRAIL can be a potent therapeutic agent for the treatment of cancers.

L14 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2002:752140 Document No. 138:297205 Combined TRAIL and Bax gene therapy prolonged survival in mice with ovarian cancer xenograft. Huang, X.; Lin, T.; Gu, J.; Zhang, L.; Roth, J. A.; Stephens, L. C.; Yu, Y.; Liu, J.; Fang, B. (Department of Thoracic and Cardiovascular Surgery, The University of Texas, Houston, TX, USA). Gene Therapy, 9(20), 1379-1386 (English) 2002. CODEN: GETHEC. ISSN: 0969-7128. Publisher: Nature Publishing Group.

AB We evaluated the antitumor activity of the Bax gene and green fluorescent protein/tumor necrosis factor-related **apoptosis**-inducing ligand (GFP/TRAIL) **fusion** gene driven by the human telomerase reverse transcriptase promoter both sep. and combined in the human ovarian cancer lines SKOV3i.p. and DOV13 and human lung cancer line H1299. In vitro study showed that both TRAIL- and Bax-expressing vectors elicited significant cell killing in H1299 and SKOV3i.p. cells, but only the GFP/TRAIL gene elicited significant cell killing in DOV13 cells. Combined TRAIL and Bax therapy also produced more profound cell killing in SKOV3i.p. and H1299 cells, but not DOV13 cells without escalation of the vector doses. To further evaluate the combined effects of Bax and TRAIL, abdominally spread tumors were established in nude mice via i.p. inoculation of SKOV3i.p. cells followed by that of adenoviral vectors. Tumor growth, ascites formation, survival duration and toxicity were evaluated after treatment. We found that treatment using the Bax- or TRAIL-expressing vector alone significantly suppressed tumor growth and ascites formation, and prolonged animal survival when compared with that of using PBS or a control vector. Combined TRAIL and Bax therapy further prolonged survival significantly when compared with therapy using the TRAIL or Bax gene alone. Transgene expression and **apoptosis** induction were not detected in normal human ovarian epithelial cells in vitro or normal mouse tissues in vivo after i.p. vector administration. Also, liver toxicity was not detected after either treatment. Thus, combined TRAIL and Bax gene therapy may be useful for treatment of abdominally spread tumors.

L14 ANSWER 12 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

2002:409321 Document No.: PREV200200409321. Selective expression of the GFP-TRAIL **fusion** gene delivered by an adenoviral vector induces **apoptosis** in human breast cancer cells and hepatocarcinoma cells. Lin, Tongyu [Reprint author]; Gu, Jian [Reprint author]; Zhang, Lidong [Reprint author]; Huang, Xuefeng [Reprint author]; Yu, Yinhua [Reprint author]; Curley, Steven A. [Reprint author]; Hunt, Kelly K. [Reprint author]; Fang, Bingliang [Reprint author]. M.D. Anderson Cancer Center, Houston, TX, USA. Proceedings of the American Association for Cancer Research Annual Meeting, (March, 2002) Vol. 43, pp. 801. print. Meeting Info.: 93rd Annual Meeting of the American Association for Cancer Research. San Francisco, California, USA. April 06-10, 2002. ISSN: 0197-016X. Language: English.

L14 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2003:63941 Document No. 138:298402 Gene cloning and expression of

extracellular region of the TRAIL. Zhou, Haisheng; Tian, Fang; Xiao, Fengjun; Zhang, Lixin; Li, Keqin (Laboratory of Oncomolecular Biology, Affiliated Hospital, Academy of Military Medical Science, Beijing, 100039, Peop. Rep. China). Zhongguo Mianyixue Zazhi, 18(7), 451-453, 456 (Chinese) 2002. CODEN: ZMZAEE. ISSN: 1000-484X. Publisher: Zhongguo Mianyixue Zazhi Bianjibu.

AB The extracellular region of the **human TRAIL** cDNA expression vector was constructed and expressed. The mRNA of TRAIL was extracted from CD3 activated normal human PBMC and used as a template for reverse transcription. After PCR amplification, a 730 bp fragment including extracellular region was obtained and cloned into pGEX-2T. The recombinant vector was named pGEX/TRAILex. The pGEX/TRAILex vector was transformed into E. coli DH5 α . After IPTG induction at lower temperature, the collection of the sonicated extract was purified by using the GST agarose 4B. The purified **fusion** protein was identified by Western blotting with anti-TRAIL McAb. The pGEX/TRAILex was constructed. After IPTG induction, a high level expression of the extracellular region of the TRAIL protein was obtained, SDS-PAGE anal. showed that the recombinant E. coli could express a 54 kD GST **fusion** protein which accounted for about 28% of the total cellular protein. The study of solubility of expression protein indicated that GST-Tex was expressed predominantly in the soluble form. The purified product was obtained, 2.2 mg/L of culture media and the purity of the GST-Tex was more than 95%. GST/TRAILex protein could be recognized by anti-TRAIL McAb in Western blot. The expression of recombinant extracellular domain of the **human TRAIL** protein may be useful for the study of biol. functions of TRAIL and its biotherapy in tumor.

L14 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2001:922159 Document No. 137:179448 TRAIL activity in human ovarian cancer cells potentiation of the action of cytotoxic drugs. Vignati, S.; Codegoni, A.; Polato, F.; Broggin, M. (Laboratory of Molecular Pharmacology, Department of Oncology, Istituto di Ricerche Farmacologiche "Mario Negri", Milan, 20157, Italy). European Journal of Cancer, 38(1), 177-183 (English) 2002. CODEN: EJCAEL. ISSN: 0959-8049. Publisher: Elsevier Science Ltd..

AB The ability of the TRAIL ligand to induce cell killing in 3 ovarian cancer cell lines was investigated using a glutathione-S-transferase (GST)-TRAIL **fusion** protein. One of the 3 lines was sensitive to TRAIL, which induced cell killing in a range of concns. similar to those necessary to kill the TRAIL-sensitive leukemic cell line Jurkat. The relative mRNA expression of the 4 TRAIL receptors did not explain the different sensitivities of the 3 ovarian cancer cell lines to TRAIL treatment. The TRAIL-sensitive IGROV-1 cell line expressed slightly lower levels of the anti-apoptotic protein FLIP than the 2 TRAIL-insensitive cell lines (A2780 and SKOV-3). Nevertheless, although TRAIL did not significantly reduce cell growth in the A2780 and SKOV-3 cells it did enhance the activity of paclitaxel and cisplatin (DDP), the 2 most widely used drugs for the treatment of ovarian cancer, increasing their ability to induce **apoptosis**. The use of TRAIL in combination with classical anticancer agents might thus boost the apoptotic response, improving the activity of DDP and paclitaxel in ovarian cancer.

L14 ANSWER 15 OF 21 MEDLINE on STN

2002106546. PubMed ID: 11840265. TRAIL (Apo2L) suppresses growth of primary human leukemia and myelodysplasia progenitors. Plasilova M; Zivny J; Jelinek J; Neuwirtova R; Cermak J; Necas E; Andera L; Stopka T. (Institute of Hematology and Blood Transfusion, Prague, Czech Republic.) Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K, (2002 Jan) 16 (1) 67-73. Journal code: 8704895. ISSN: 0887-6924. Pub. country: England: United Kingdom. Language: English.

AB Tumor necrosis factor-related **apoptosis**-inducing ligand (TRAIL, APO2L) has been shown to induce **apoptosis** in a number of tumor cell lines as well as in some primary tumors whereas cells from most normal tissues are highly resistant to TRAIL-induced **apoptosis**.

We have studied the susceptibility of primary malignant and normal bone marrow hematopoietic progenitors to TRAIL-induced **apoptosis**. Extracellular domain of **human TRAIL** with N-terminal His(6) tag (His-TRAIL, amino acids 95-281) was produced in *E. coli* and its **apoptosis**-inducing ability was compared with the leucine-zipper containing TRAIL, LZ-TRAIL. Both variants of TRAIL had the same **apoptosis**-inducing ability. Clonogenic progenitor assays showed that His-TRAIL significantly reduced the number of myeloid colonies (CFU-GM) and clusters from patients with acute myeloid leukemia (AML), chronic myeloid leukemia (CML), and myelodysplastic syndromes (MDS). His-TRAIL had no negative effect on the number of CFU-GM colonies and clusters derived from bone marrow cells of AML patients in complete remission, and lymphoma patients without bone marrow involvement, as well as those derived from normal cord blood cells. Moreover, we found that normal human stem cells treated with high doses of His-TRAIL maintain a repopulating potential when transplanted into NOD/SCID mice. To conclude, our data document that TRAIL does not affect normal human hematopoiesis but suppresses the growth of early primary leukemia and myelodysplasia progenitors.

L14 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2001:816740 Document No. 135:356769 Monoclonal and humanized antibodies selective for tumor necrosis factor-related **apoptosis**-inducing ligand receptor DR5. Zhou, Tong; Ichikawa, Kimihisa; Kimberly, Robert P.; Koopman, William J. (UAB Research Foundation, USA). PCT Int. Appl. WO 2001083560 A1 20011108, 229 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2001-US14151 20010502. PRIORITY: US 2000-PV201344 20000502.

AB The authors disclose the preparation and characterization of antibodies targeting **human TRAIL** receptor DR5. Also disclosed are sequences of the anti-DR5 antibodies and the preparation of vectors for expression of the antibodies in host cells. The authors demonstrate the receptor agonistic effects wherein the antibodies induce including inhibition of tumor cell proliferation and **apoptosis** of cells with surface expression of DR5.

L14 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

2001:834383 Document No. 136:117122 Induction of a TRAIL mediated suicide program by interferon alpha in primary effusion lymphoma. Toomey, Ngoc L.; Deyev, Vadim V.; Wood, Charles; Boise, Lawrence H.; Scott, Duncan; Liu, Lei Hua; Cabral, Lisa; Podack, Eckhard R.; Barber, Glen N.; Harrington, William J., Jr. (Department of Medicine, University of Miami School of Medicine, Miami, FL, 33136, USA). Oncogene, 20(48), 7029-7040 (English) 2001. CODEN: ONCNES. ISSN: 0950-9232. Publisher: Nature Publishing Group.

AB Gammaherpes viruses are often detected in lymphomas arising in immunocompromised patients. The authors have found that azidothymidine (AZT) alone induces **apoptosis** in Epstein Barr Virus (EBV) pos. Burkitt's lymphoma (BL) cells but requires interferon α (IFN- α) to induce **apoptosis** in human herpes virus 8 (HHV-8) pos. primary effusion lymphomas (PEL). The anal. of a series of AIDS lymphomas revealed that IFN- α selectively induced very high levels of the death receptor (DR) tumor necrosis factor-related **apoptosis**-inducing ligand (TRAIL) in HHV-8 pos. PEL lines and primary tumor cells. AZT and IFN- α mediated **apoptosis** in PEL was blocked by stable overexpression of dominant neg. Fas associated death domain (FADD), decoy receptor 2 (DcR2), soluble TRAIL receptor fusion proteins (DR-4 and DR-5), and thymidine. Trimeric TRAIL

(in place of IFN- α) similarly synergized with AZT to induce **apoptosis** in HHV-8 pos. PEL cells. This is the first demonstration that IFN- α induces functional TRAIL in a malignancy that can be exploited to effect a suicide program. This novel antiviral approach to primary effusion lymphomas is targeted and may represent a highly effective and relatively non-toxic therapy.

L14 ANSWER 18 OF 21 MEDLINE on STN

2001249211. PubMed ID: 11309289. Antitumor activity and bystander effects of the tumor necrosis factor-related **apoptosis**-inducing ligand (TRAIL) gene. Kagawa S; He C; Gu J; Koch P; Rha S J; Roth J A; Curley S A; Stephens L C; Fang B. (Section of Thoracic Molecular Oncology, Department of Thoracic and Cardiovascular Surgery, The University of Texas M. D. Anderson Cancer Center, Houston, TX 77030, USA.) Cancer research, (2001 Apr 15) 61 (8) 3330-8. Journal code: 2984705R. ISSN: 0008-5472. Pub. country: United States. Language: English.

AB Tumor necrosis factor-related **apoptosis**-inducing ligand (TRAIL) has been reported to specifically kill malignant cells but to be relatively nontoxic to normal cells. To evaluate the antitumor activity and therapeutic value of the TRAIL gene, we constructed adenoviral vectors expressing the **human TRAIL** gene and transferred them into malignant cells in vitro and tumors in vivo. The in vitro transfer elicited **apoptosis**, as demonstrated by the quantification of viable or apoptotic cells and by the analysis of activation of pro-caspase-8 and cleavage of poly(ADP-ribose) polymerase. The intratumoral delivery elicited tumor cell **apoptosis** and suppressed tumor growth. In comparison with Bax gene treatment, which is toxic to normal cells, TRAIL gene treatment caused no detectable toxicity in cultured normal fibroblasts nor in mouse hepatocytes after systemic gene delivery. Furthermore, coculture of cancer cells expressing TRAIL with those expressing green fluorescent protein (GFP) resulted in **apoptosis** of both cells, whereas coculture of Bax-expressing cells with GFP-expressing cells resulted in the cell death of the Bax-expressing cells only, which suggested that the transfer of the TRAIL gene resulted in bystander effects. Moreover, culture of cells with medium from TRAIL-expressing cells showed the proapoptotic activity and bystander effect of the TRAIL gene to be not transferable with medium. To further demonstrate the bystander effect of the TRAIL gene, we constructed plasmid vectors encoding GFP-TRAIL or GFP-Bik chimeric proteins. Transfection of the GFP-TRAIL gene into cancer cells resulted in the death of GFP-positive cells and their neighbors, whereas transfection of the GFP-Bik gene killed GFP-positive cells only. Finally, GFP-TRAIL genes, transfected into normal human fibroblasts or bronchial epithelial cells, did not kill such cells, whereas transfected GFP-Bik genes did. Thus, the direct transfer of the TRAIL gene led to selective killing of malignant cells with bystander effect, which suggests that the TRAIL gene could be valuable for treatment for cancers. Together, these results suggest that delivering the TRAIL gene to cancerous cells may be an alternative approach to cancer treatment.

L14 ANSWER 19 OF 21 MEDLINE on STN

2001253004. PubMed ID: 11273779. Regression of human mammary adenocarcinoma by systemic administration of a recombinant gene encoding the hFlex-TRAIL **fusion** protein. Wu X; He Y; Falo L D Jr; Hui K M; Huang L. (Center for Pharmacogenetics, University of Pittsburgh, Pittsburgh, Pennsylvania 15261, USA.) Molecular therapy : journal of the American Society of Gene Therapy, (2001 Mar) 3 (3) 368-74. Journal code: 100890581. ISSN: 1525-0016. Pub. country: United States. Language: English.

AB The tumor necrosis factor (TNF)-related **apoptosis**-inducing ligand, TRAIL, is a new member of the TNF family. It can specifically induce **apoptosis** in a variety of human tumors. To investigate the possibility of employing the TRAIL gene for systemic cancer therapy, we constructed a recombinant gene encoding the soluble form of the human Flt3L gene (hFlex) at the 5' end and the **human TRAIL**

gene at the 3' end. Such design allows the TRAIL gene product to be secreted into the body circulation. We have also demonstrated that the addition of an isoleucine zipper to the N-terminal of TRAIL greatly enhanced the trimerization of the **fusion** protein and dramatically increased its anti-tumor activity. The **fusion** protein reached the level of 16-38 microg/ml in the serum after a single administration of the recombinant gene by hydrodynamic-based gene delivery in mice. A high level of the **fusion** protein correlated with the regression of a human breast tumor established in SCID mice. No apparent toxicity was observed in the SCID mouse model. In addition, the **fusion** protein caused an expansion of the dendritic cell population in the C57BL/6 recipient mice, indicating that the hFlex component of the **fusion** protein was functional. Thus, the hFlex-TRAIL **fusion** protein may provide a novel approach, with the possible involvement of dendritic cell-mediated anti-cancer immunity, for the treatment of TRAIL-sensitive tumors.

L14 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

1999:77679 Document No. 130:152564 Sequence, **fusion** proteins and recombinant expression of **human TRAIL** (tumor necrosis factor-related **apoptosis**-inducing ligand) receptors. Degli-Esposti, Mariapia (Immunex Corporation, USA). PCT Int. Appl. WO 9903992 A1 19990128, 51 pp. DESIGNATED STATES: W: AU, CA, IL, IS, JP, KR, MX, NO, NZ; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US14410 19980710. PRIORITY: US 1997-892119 19970715.

AB The present invention is directed to a human protein designated TRAIL receptor (TRAIL-R), which binds to tumor necrosis factor-related **apoptosis**-inducing ligand (TRAIL). Isolated cDNA sequences encoding two variants of **human TRAIL-R** polypeptides are provided, along with expression vectors containing the cDNA sequences, and host cells transformed with such recombinant expression vectors. Construction of an expression vector encoding a soluble TRAIL-R/Fc **fusion** protein is also disclosed. Antibodies that are immunoreactive with TRAIL-R are also provided. Binding of recombinant TRAIL-R to TRAIL was demonstrated. Potential biol. and therapeutic uses of TRAIL-R were discussed.

L14 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN

1999:9934 Document No. 130:90906 sequence and map of **human TRAIL**-specific cytokine Apo-2dcr decoy receptor with therapeutic applications for disorders involving **apoptosis**. Ashkenazi, Avi J.; Baker, Kevin P.; Chuntharapai, Anan; Gurney, Austin; Kim, Kyung Jin; Wood, William I. (Genentech, Inc., USA). PCT Int. Appl. WO 9858062 A1 19981223, 88 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 1998-US12456 19980612. PRIORITY: US 1997-878168 19970618.

AB Novel polypeptides, designated cytokine Apo-2DcR decoy receptor, which are capable of binding Apo-2/TRAIL (tumor necrosis factor-related **apoptosis**-inducing ligand) are provided. Compns. including Apo-2DcR chimeras with Igs and epitope tags, nucleic acid encoding Apo-2DcR, and antibodies to Apo-2DcR are also provided. The Apo-2DcR decoy receptor is expressed in normal tissues but not tumor cells, suggesting that this receptor may allow for preferential killing of cancer cells by the Apo-2 ligand. This gene was mapped on human chromosome 8p and has therapeutic applications for treatment of disorders involving **apoptosis**.

=> s "ATCC 97448"
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L17 0 L16 AND "AIM-1"

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L18 1 L16 AND APOPTOSIS INDUCING MOLECULE-1

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L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2004 ACS on STN
1997:623179 Document No. 127:315580 Apoptosis-inducing molecule I and its
encoding cDNA from human tissues. **Ruben, Steven M.** (Human
Genome Sciences, Inc., USA; Ruben, Steven M.). PCT Int. Appl. WO 9733899
A1 19970918, 83 pp. DESIGNATED STATES: W: AM, AU, BG, BR, BY, CA, CN,
CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LT, LV, MD, MN, MX, NO, NZ, PL,
RO, RU, SG, SI, SK, TJ, TM, UA, US, UZ, VN; RW: AT, BE, CH, DE, DK, ES,
FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2.
APPLICATION: WO 1996-US3773 19960314.

AB The invention relates to apoptosis-inducing mol. I (AIM-I) polypeptides,
polynucleotides encoding the polypeptides, methods for producing the
polypeptides, in particular by expressing the polynucleotides, and
agonists and antagonists of the polypeptides. AIM-I cDNA was discovered
in a cDNA library derived from cells of a human pancreatic tumor and shown
to contain an open reading frame encoding 281 amino acid residues with
48.6% similarity and 22.9% identity to human Fas ligand. Northern blot
anal. shows that AIM-I mRNA is abundant in human heart, bone marrow, CD4+
and CD19+ peripheral blood lymphocytes, and less so in lung and kidney
tissue. Cloning of human AIM-I cDNA was demonstrated by expression in
Escherichia coli using the bacterial expression vector pQE9, expression in
a baculovirus expression system using the pA2 vector, expression in COS
cells using the pcDNAI/Amp vector, and gene therapeutic expression. The
invention further relates to methods for utilizing such polynucleotides,
polypeptides, agonists and antagonists for applications, which relate, in
part, to research, diagnostic and clin. arts.

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L20 ANSWER 1 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
2004:413784 The Genuine Article (R) Number: 815UH. Oral GPIIb/IIIa
antagonists: What went wrong?. Cox D (Reprint). Royal Coll Surgeons
Ireland, Sch Pharm, Dept Clin Pharmacol, St Stephens Green, Dublin 2,
Ireland (Reprint); Royal Coll Surgeons Ireland, Sch Pharm, Dept Clin
Pharmacol, Dublin 2, Ireland. CURRENT PHARMACEUTICAL DESIGN (MAY 2004)
Vol. 10, No. 14, pp. 1587-1596. Publisher: BENTHAM SCIENCE PUBL LTD. PO
BOX 1673, 1200 BR HILVERSUM, NETHERLANDS. ISSN: 1381-6128. Pub. country:
Ireland. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB GPIIb/IIIa receptor antagonists block fibrinogen binding to platelets
and as a result inhibit platelet aggregation. They are very potent
inhibitors due to the critical role fibrinogen binding plays in platelet
aggregation. When given intravenously these drugs have been shown to be
very effective as adjuvant therapy in percutaneous coronary intervention

and in acute coronary syndromes. However, despite being as potent as their intravenous counterparts, all of the oral inhibitors showed no benefit or even increased mortality in clinical trials. There are a number of reasons for their failure. The target was different, chronic treatment to prevent thrombotic events as opposed to short-term treatment to prevent acute events and as a result, different dosing regimens were used. The acute use aims at a high level of inhibition (80-90%) while the chronic use produced lower levels of inhibition. Many of the oral inhibitors had low bioavailability that led to a large peak-through difference. Most GPIIb/IIIa antagonists have the ability to activate platelets through a GPIIb/IIIa-mediated process. This is known as partial agonism. In the presence of high drug levels, such as during an infusion this is not a problem, however combined with the low trough levels with oral inhibitors this can lead to an increase in platelet aggregation. Other problems include drug-induced conformational changes in GPIIb/IIIa (ligand-regulated binding sites) and possible pharmacogenomics effects in the response to the drugs, in particular the p1(A) polymorphism in GPIIb/IIIa. By addressing these issues it is possible for a new generation of oral GPIIb/IIIa antagonist to be developed.

L20 ANSWER 2 OF 149 MEDLINE on STN DUPLICATE 1
 2004116181. PubMed ID: 15006556. Pancreatic stellate cell migration: role of the phosphatidylinositol 3-kinase (PI3-kinase) pathway. McCarroll Joshua A; Phillips Phoebe A; Kumar Rakesh K; Park Sandra; Pirola Romano C; Wilson Jeremy S; Apte Minoti V. (University of New South Wales, Sydney, Australia.) Biochemical pharmacology, (2004 Mar 15) 67 (6) 1215-25. Journal code: 0101032. ISSN: 0006-2952. Pub. country: England: United Kingdom. Language: English.

AB Pancreatic stellate cells (PSCs) are implicated as key mediators of pancreatic fibrogenesis and are found in increased numbers in areas of pancreatic injury. This increase in number may be due to increased local proliferation and/or migration of PSCs to affected areas from surrounding tissue. We have recently shown that PSCs can migrate and that this migration is stimulated by PDGF in a predominantly chemotactic manner [Gut 52 (2003) 677]. However, the signalling mechanisms responsible for PDGF-induced PSC migration are not known. **Aims:** (i) To determine whether PDGF-induced PSC migration is mediated by the PI3-kinase pathway. (ii) To investigate whether cell migration is influenced by cell proliferation and whether an interaction exists between the PI3-kinase pathway and the ERK1/2 pathway (known to mediate cell proliferation) in PSCs exposed to PDGF. **Methods:** (i) PI3-kinase activity was assessed by measuring the activation (phosphorylation) of its downstream substrate Akt in rat PSCs incubated with PDGF (10ng/mL) for 5min, 15min, 60min, and 24hr in the presence or absence of the specific PI3-kinase inhibitor wortmannin. (ii) The role of the PI3-kinase pathway in PSC migration was examined by assessing PSC migration through a porous membrane after exposure to PDGF in the presence and absence of wortmannin for 24hr. (iii) The relationship between migration and proliferation was assessed by examining migration of PSCs exposed to PDGF in the presence and absence of mitomycin C, an inhibitor of cell proliferation. (iv) The interaction between PI3-kinase and ERK1/2 was examined by incubation of PSCs with PDGF in the presence and absence of wortmannin, followed by assessment of ERK1/2 activation by western blot. **Results:** PDGF increased Akt activation in PSCs as early as at 5min of incubation and this increase was sustained for 24hr. Inhibition of PI3-kinase by wortmannin decreased basal as well as PDGF-induced migration and also inhibited ERK1/2 activation. Inhibition of PSC proliferation with mitomycin C significantly reduced (but did not abolish) basal and PDGF-induced PSC migration. **Conclusions:** (i) The PI3-kinase pathway is induced in PSCs after exposure to PDGF and this induction is sustained for at least 24hr. (ii) The PI3-kinase pathway plays a role in PDGF-induced PSC migration and is partially involved in mediating ERK1/2 activation. (iii) PSC migration is dependent, at least in part, on cell proliferation.

L20 ANSWER 3 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

2004:454465 The Genuine Article (R) Number: 819FL. Null model analysis of communities on gradients. Sanderson J G (Reprint). Conservation Int, Ctr Appl Biodivers Sci, 1919 M St, NW, Suite 600, Washington, DC 20036 USA (Reprint); Conservation Int, Ctr Appl Biodivers Sci, Washington, DC 20036 USA. JOURNAL OF BIOGEOGRAPHY (JUN 2004) Vol. 31, No. 6, pp. 879-883. Publisher: BLACKWELL PUBLISHING LTD. 9600 GARSINGTON RD, OXFORD OX4 2DG, OXON, ENGLAND. ISSN: 0305-0270. Pub. country: USA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB **Aim I** employed a novel null model and metric to uncover unusual species co-occurrence patterns in a herpetofaunal assemblage of 49 species collected at discrete elevations along a gradient.

Location Mount Kupe, Cameroon.

Methods Using a construction algorithm that started from a matrix of 0s, a sample null space of 25,000 unique null matrices was generated by simultaneously conserving (1) the number of occurrences of each species, (2) site richness and (3) species range spans derived from the observed incidence matrix. I then compared the number of times each pair of confamilial species co-occurred in the null space with the same number derived from the observed incidence matrix. Two cases dealing with embedded absences in species ranges were tested: (1) embedded absences were maintained, and (2) embedded absences were assumed to be sampling omissions and were replaced by presences.

Results In the observed absence/presence assemblage there were 147 possible confamilial species pairs. Therefore, 5% or eight were expected by chance alone to have co-occurrence patterns that differed from chance expectations by chance alone. Of these confamilial species pairs, 38 were congeneric and so 5% or two were expected to differ from chance expectations. For case (1) 16, and for case (2) 17 confamilial species pairs' co-occurrence patterns differed significantly from chance expectations. For case (1) nine congeneric species pairs, and for case (2) 10 congeneric pairs differed significantly from chance expectations. For case (1) four, and for case (2) five congeneric species pairs formed checkerboards (patterns of mutual exclusion). Results from case (1) were a proper subset of case (2) indicating that sampling omissions did not alter greatly the results.

Main conclusions I have demonstrated that null models are valuable tools to analyse ecological communities provided that proper models are employed. The choice of the appropriate null space to analyse distributions is critical. The null model employed to analyse birds on islands of an archipelago can be adapted to analyse species along gradients provided an additional range constraint is added to the null model. Moreover, added precision to results can be obtained by analysing each species pair separately, particularly those in the same family or genus, as opposed to applying a community-wide metric to the faunal assemblage. My results support some of the speculations of previous authors who were unable to demonstrate their suspicions analytically.

L20 ANSWER 4 OF 149 MEDLINE on STN DUPLICATE 2
2004087183. PubMed ID: 14766855. spa typing method for discriminating among Staphylococcus aureus isolates: implications for use of a single marker to detect genetic micro- and macrovariation. Koreen Larry; Ramaswamy Srinivas V; Graviss Edward A; Naidich Steven; Musser James M; Kreiswirth Barry N. (Public Health Research Institute, International Center for Public Health, Graduate School of Biomedical Sciences and New Jersey Medical School, University of Medicine and Dentistry of New Jersey, Newark, New Jersey 07103, USA.) Journal of clinical microbiology, (2004 Feb) 42 (2) 792-9. Journal code: 7505564. ISSN: 0095-1137. Pub. country: United States. Language: English.

AB Strain typing of microbial pathogens has two major aims: (i). to index genetic microvariation for use in outbreak investigations and (ii). to index genetic macrovariation for use in phylogenetic and population-based analyses. Until now, there has been no clear indication that one genetic marker can efficiently be used for both purposes. Previously, we had shown that DNA sequence analysis of the

protein A gene variable repeat region (spa typing) provides a rapid and accurate method to discriminate *Staphylococcus aureus* outbreak isolates from those deemed epidemiologically unrelated. Here, using the hypothesis that the genetic macrovariation within a low-level recombinogenic species would accurately be characterized by a single-locus marker, we tested whether spa typing could congruently index the extensive genetic variation detected by a whole-genome DNA microarray in a collection of 36 isolates, which was recovered from 10 countries on four continents over a period of four decades, that is representative of the breadth of diversity within *S. aureus*. Using spa and coa typing, pulsed-field gel electrophoresis (PFGE), and microarray and multilocus enzyme electrophoresis (MLEE) data in molecular epidemiologic and evolutionary analyses, we determined that *S. aureus* likely has a primarily clonal population structure and that spa typing can singly index genetic variation with 88% direct concordance with the microarray and can correctly assign isolates to phylogenetic lineages. spa typing performed better than MLEE, PFGE, and coa typing in discriminatory power and in the degree of agreement with the microarray at various phylogenetic depths. This study showed that genetic analysis of the repeat region of protein A comprehensively characterizes both micro- and macrovariation in the primarily clonal population structure of *S. aureus*.

L20 ANSWER 5 OF 149 MEDLINE on STN DUPLICATE 3
 2004218412. PubMed ID: 15082588. Is the mucosal route of administration essential for probiotic function? Subcutaneous administration is associated with attenuation of murine colitis and arthritis. Sheil B; McCarthy J; O'Mahony L; Bennett M W; Ryan P; Fitzgibbon J J; Kiely B; Collins J K; Shanahan F. (Alimentary Pharmabiotic Centre, Department of Medicine, National University of Ireland, Cork, Ireland.) Gut, (2004 May) 53 (5) 694-700. Journal code: 2985108R. ISSN: 0017-5749. Pub. country: England; United Kingdom. Language: English.

AB BACKGROUND: We and others have reported the prophylactic efficacy of oral consumption of probiotic lactobacilli in the interleukin 10 knockout (IL-10 KO) model of colitis. It has not been demonstrated that the oral route is essential for probiotic efficacy. AIMS: (i) To determine the effect of parenteral administration (subcutaneous) of *Lactobacillus salivarius* 118 on colitis of IL-10 KO mice; and (ii) to determine if observed responses are disease specific. METHODS: (i) IL-10 KO mice were injected subcutaneously with *L. salivarius* 118 or saline over 19 weeks. At sacrifice, the bowels were histologically scored. Isolated splenocytes were cultured in vitro and cytokine levels measured. (ii) In the collagen induced arthritis model, DBA/1 mice were injected subcutaneously with the probiotic or saline. At sacrifice, paw thickness was measured and joints were histologically scored. RESULTS: (i) Colonic inflammatory scores were significantly decreased in IL-10 KO mice injected with *L. salivarius* 118 compared with controls ($p < 0.05$). Proinflammatory cytokine production from stimulated splenocytes was significantly lower for the probiotic group whereas stimulated transforming growth factor beta (TGF-beta) levels were significantly increased ($p < 0.05$). (ii) Scoring of arthritis and paw thickness were significantly improved in the group of mice injected with *L. salivarius* 118 compared with controls. CONCLUSIONS: (1) Subcutaneous administration of *L. salivarius* 118 significantly attenuated colitis in the IL-10 KO model and suppressed collagen induced arthritis, suggesting that the oral route may not be essential for probiotic anti-inflammatory effects and that responses are not disease specific. (2) The probiotic effect was associated with reduced production of proinflammatory (T helper 1) cytokines and maintained production of anti-TGF-beta.

L20 ANSWER 6 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 2004:296246 The Genuine Article (R) Number: 805QZ. Untangling latitudinal richness gradients at higher taxonomic levels: familial perspectives on the diversity of New World bat communities. Stevens R D (Reprint). Univ Calif Santa Barbara, Natl Ctr Ecol Anal & Synth, 735 State St Suite 300, Santa Barbara, CA 93101 USA (Reprint); Univ Calif Santa Barbara, Natl Ctr

Ecol Anal & Synth, Santa Barbara, CA 93101 USA; Texas Tech Univ, Dept Biol Sci, Program Ecol, Lubbock, TX 79409 USA. JOURNAL OF BIOGEOGRAPHY (APR 2004) Vol. 31, No. 4, pp. 665-674. Publisher: BLACKWELL PUBLISHING LTD. 9600 GARSINGTON RD, OXFORD OX4 2DG, OXON, ENGLAND. ISSN: 0305-0270. Pub. country: USA. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB

Aims (i) To describe at the level of local communities latitudinal gradients in the species richness of different families of New World bats and to explore the generality of such gradients. (ii) To characterize the relative effects of changes in the richness of each family to the richness of entire communities. (iii) To determine differences in the rate and direction of latitudinal gradients in species richness within families. (iv) To evaluate how differences among families regarding latitudinal gradients in species richness influence the latitudinal gradient in species richness of entire communities.

Location Continental New World ranging from the northern continental United States (Iowa, 42degrees N) to eastern Paraguay (Canindeyu, 24degrees S).

Methods Data on the species composition of communities came from 32 intensively sampled sites. Analyses focused on species richness of five of nine New World bat families. Multivariate analysis of variance and discriminant function analysis determined and described differences among temperate, subtropical, and tropical climatic zones regarding the species richness of bat families. Simple linear regression described latitudinal gradients in species richness of families. Path analysis was used to describe: (i) the direct effect of latitude on species richness of communities, (ii) the indirect effects of latitude on the species richness of communities through its effect on the species richness of each family, (iii) the relative effects of latitude on the species richness of bat families, and (iv) the relative contribution of each family to variation in the species richness of communities.

Results Highly significant differences among climatic zones existed primarily because of a difference between the temperate zone and the tropical and subtropical zones combined. This difference was associated with the high number of vespertilionids in the temperate zone and the high number of phyllostomids in the tropical and subtropical zones. Latitudinal gradients in species richness were contingent on phylogeny. Although only three of the five families exhibited significant gradients, all families except for the Vespertilionidae exhibited indistinguishable increases in species richness with decreases in latitude. The Emballonuridae, Phyllostomidae and Vespertilionidae exhibited significant latitudinal gradients whereby the former two families exhibited the classical increase in species richness with decreasing latitude and the latter family exhibited the opposite pattern. Variation in species richness of all families contributed significantly to variation in the species richness of entire communities. Nonetheless, the Phyllostomidae made a significantly stronger contribution to changes in species richness of communities than did all other families. Much of the latitudinal gradient in species richness of communities could be accounted for by the effects of latitude on the species richness of constituent families.

Main conclusions Ecological and evolutionary differences among higher taxonomic units, particularly those differences involving life-history traits, predispose taxa to exhibit different patterns of diversity along environmental gradients. This may be particularly true along extensive gradients such as latitude. Nonetheless, species rich taxa, by virtue of their greater absolute rates of change, can dominate and therefore define the pattern of diversity at a higher taxonomic level and eclipse differences among less represented taxa in their response to environmental gradients. This is true not only with respect to how bats drive the latitudinal gradient in species richness for all mammals, but also for how the Phyllostomidae drives the latitudinal gradient for all bats in the New World. Better understanding of the mechanistic basis of latitudinal gradients of diversity may come from comparing and contrasting patterns across lower taxonomic levels of a higher taxon and by identifying key

ecological and evolutionary traits that are associated with such differences.

L20 ANSWER 7 OF 149 MEDLINE on STN DUPLICATE 4
2004242148. PubMed ID: 15139898. Nutrition in the community--an exploratory study of oral nutritional supplements in a health board area in Ireland. Loane D; Flanagan G; Siun A; McNamara E; Kenny S. (School of Biological Sciences, Dublin Institute of Technology, Dublin, Ireland.) Journal of human nutrition and dietetics : official journal of the British Dietetic Association, (2004 Jun) 17 (3) 257-66. Journal code: 8904840. ISSN: 0952-3871. Pub. country: England: United Kingdom. Language: English.

AB BACKGROUND: A review of the General Medical (Payments) Scheme data in the Midland Health Board (MHB) Ireland identified a spend of just over euro 0.5 million on enteral nutritional supplements (oral and tube feeds) in an 11-month period in 1998 [General Medical Services (Payments) Board, 1998, MHB Clinical Nutritional Products: January-December 1998, Dublin]. In 2000, a figure of euro5 million was reported as the annual spend (oral and tube feeds) [General Medical Services (Payments) Board, 2000, MHB Clinical Nutritional Products: January-December 2000, Dublin]. Research has shown that a high proportion of Oral Nutritional Supplements (ONS) are inappropriately prescribed by primary care practitioners (Gall et al., 2001). The role of General Practitioners (GPs) and Public Health Nurses (PHNs) in prescribing ONS to patients aged 65 years and older was examined, as they are directly involved in the delivery of primary health care. **AIM:** (i) Assess current trends, decision-making processes and monitoring procedures in the use of ONS for older patients in the community. (ii) Identify whether nutritional assessments and appropriate nutritional criteria are standard practice in determining selection of ONS. **METHODS:** A study was conducted among 99 GPs and 120 PHNs in the MHB. All GPs were selected to participate and 50% (60) of PHNs were randomly selected. A telephone questionnaire was administered to each subject over a 2-week period. **RESULTS:** Both GPs (78%) and PHNs (47%) reported that their prescription of/recommendations for ONS had increased in the last 4 years. None conducted a full nutritional assessment, but 25% of PHNs used a Nutrition Screening Tool when trying to ascertain whether a patient requires an ONS. Only 19.6% of GPs and 6.8% of PHNs surveyed were aware of the calorie content of a standard 200 mL ONS (sip-feed). In addition, a very significant proportion of both GPs and PHNs do not appear to give appropriate dietary advice to patients who may be at risk of malnutrition. Only 55% of GPs stated that they would specifically review a patient's ONS prescription. All GPs said that they would not conduct a full nutritional assessment at the review appointment. **CONCLUSION:** The results of this study raise concerns as to the appropriateness of current ONS prescription and monitoring in the community. They also highlight the need for further intervention in the primary care setting in order to ensure that elderly malnourished patients are detected, treated and monitored in an appropriate and cost-effective manner.

L20 ANSWER 8 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 5
2004:242224 Document No.: PREV200400243755. Trapping intensities for sampling ants in Australian rangelands. James, Craig D. [Reprint Author]. Centre for Arid Zone Research, CSIRO Sustainable Ecosystems, PO Box 2111, Alice Springs, Northern Territory, 0871, Australia. craig.james@csiro.au. Austral Ecology, (February 2004) Vol. 29, No. 1, pp. 78-86. print. ISSN: 1442-9985 (ISSN print). Language: English.

AB I investigated the relationship between species richness and composition of ant faunas, and sampling intensity in two regions with different long-term histories of grazing intensity in mulga (*Acacia aneura*) woodlands in northern New South Wales. There were two **aims:** (i) to examine the relationship between sampling intensity and species richness and composition; and (ii) to explore the differences in ant assemblages from two regions of markedly different grazing intensity when sampled at different intensities (i.e. when a higher proportion of

the local ant fauna were collected). Ants were sampled in pit traps (120-mm diameter) at densities of two, four, six and nine pits per 100 m². Each sampling-intensity treatment was replicated three times within each region. Pit traps filled with preservative were opened for 3 days. Species richness was higher with each successive increase in sampling intensity but was not different between regions for a given trapping intensity. There was no obvious asymptote of the curve relating trapping intensity to cumulative species richness suggesting that even greater trap densities than those used in the present study would be needed to collect most of the species of ants using a patch of ground over a few days. Spatial replication of a low-intensity sampling design did not capture as many species as one higher-intensity sampling array with the same total number of pit traps. This result can be explained by aggressive numerically dominant species of ants monopolizing access to a greater proportion of the traps in low-density arrays. Ordination reveals that regions and sampling-intensity treatments could be discriminated and that differences between regions with different grazing histories were less apparent with high-intensity sampling arrays than they were with low-intensity sampling arrays. This suggests that differences between locations in space (or potentially samples in time) could be exaggerated by incomplete sampling of the patch-scale fauna. Comparison of the present study with other studies suggests that most studies to date have used sampling intensities that would not give a thorough assessment of the patch-scale ground-dwelling fauna if sampled only by pit traps. The implications of the results for programmes of ant monitoring in rangelands are discussed.

L20 ANSWER 9 OF 149 MEDLINE on STN DUPLICATE 6
 2004241692. PubMed ID: 15113448. Assessing anti-rabies baiting - what happens on the ground?. Thulke Hans-Hermann; Selhorst Thomas; Muller Thomas; Wyszomirski Tomasz; Muller Uli; Breitenmoser Urs. (Department of Ecological Modelling, UFZ-Centre for Environmental Research Leipzig/Halle, Leipzig, Germany.. hans.thulke@ufz.de) . BMC infectious diseases [electronic resource], (2004 Mar 9) 4 (1) 9. Journal code: 100968551. ISSN: 1471-2334. Pub. country: England; United Kingdom. Language: English.

AB BACKGROUND: Rabies is one of the most hazardous zoonoses in the world. Oral mass vaccination has developed into the most effective management method to control fox rabies. The future need to control the disease in large countries (i.e. Eastern Europe and the Americas) forces cost-benefit discussions. The 'Increase bait density' option refers to the usual management assumption that more baits per km² could compensate for high fox abundance and override the imperfect supply of bait pieces to the individual fox. METHODS: We use a spatial simulation, which combines explicitly fox space use (tessellation polygons) and aeroplane flight lines (straight lines). The number of baits actually falling into each polygon is measured. The manager's strategic options are converted into changes of the resulting bait distribution on the ground. The comparison enables the rating of the options with respect to the management aim (i.e. accessibility of baits). RESULTS: Above 5% (approx. 10%) of all fox groups without any bait (at most 5 baits) relate to the baiting strategy applied in the field (1 km spaced parallel flight lines, 20 baits per km² distributed) under habitat conditions comparable to middle and western Europe (fox group home-range 1 km², 2.5 adults; reference strategy). Increasing the bait density on the same flight-line pattern neither reduces the number of under-baited fox group home-ranges, nor improves the management outcome and hence wastes resources. However, reducing the flight line distance provides a more even bait distribution and thus compensates for missed fox groups or extra high fox density. The reference strategy's bait density can be reduced when accounting for the missed fox groups. The management result with the proper strategy is likely the same but with reduced costs. CONCLUSION: There is no overall optimal strategy for the bait distribution in large areas. For major parts of the landscape, the reference strategy will be more competitive. In situations where set backs are attributed to non-homogeneous bait accessibility the distribution scheme has to be refined zone-based (i.e.

increase of the flight line length per unit area). However, increase in bait density above the reference strategy appears inappropriate at least for non-urban abundance conditions of the red fox.

- L20 ANSWER 10 OF 149 MEDLINE on STN DUPLICATE 7
2003118379. PubMed ID: 12631201. Growth and molecular characterization of dental plaque microcosms. McBain A J; Bartolo R G; Catrenich C E; Charbonneau D; Ledder R G; Gilbert P. (School of Pharmacy and Pharmaceutical Sciences, University of Manchester, UK.) Journal of applied microbiology, (2003) 94 (4) 655-64. Journal code: 9706280. ISSN: 1364-5072. Pub. country: England: United Kingdom. Language: English.
- AB **AIMS:** (i) To compare the effects of feeding protocols upon the composition and stability of dental plaque microcosms formed in constant-depth film fermenters (CDFF). (ii) To evaluate the utility of denaturing gradient gel electrophoresis (DGGE) and culture methodologies for the investigation of such models. **METHODS AND RESULTS:** Microcosms were established anaerobically in the CDFFs from freshly collected saliva. These were fed either with artificial saliva alone (famine) or combined with discontinuous feeding (feast-famine). Culture and 16s rDNA sequencing indicated that supplemental feeding gave ca. 2 log increases in *Lactobacillus rhamnosus* and *Prevotella buccae*. Feast-famine microcosms were then further characterized by DGGE using primers specific for the V2-V3 region of eubacterial rDNA. These gave single major bands with pure cultures (eight species) and resolved all strains apart from *Lact. rhamnosus* and *Actinomyces naeslundii*. Whilst culture with selective media indicated a degree of stability and reproducibility between replicate microcosms, DGGE showed a considerable degree of variability that related to several putatively uncultured bacteria. **CONCLUSIONS:** Feast-famine regimes altered community composition. DGGE analyses identified putatively unculturable species and demonstrated variability between replicate fermenters. **SIGNIFICANCE AND IMPACT OF THE STUDY:** This study demonstrates the utility of DGGE for the analysis of dental plaque, especially with respect to unculturable bacteria. Results question the assumptions of reproducibility of plaque microcosms established in non-replicated CDFFs made on the basis of selective media. Feeding regimes, particularly those involving complex nutrients, will dramatically affect population dynamics.

- L20 ANSWER 11 OF 149 MEDLINE on STN DUPLICATE 8
2004069166. PubMed ID: 14870828. The Florence city sample: dietary and life-style habits of a representative sample of adult residents. a comparison with the EPIC-Florence volunteers. Masala Giovanna; Assedi Melania; Saieva Calogero; Salvini Simonetta; Cordopatri Giovanna; Ermini Ilaria; Martinez Maria del Carmen; Tanzini Donata; Zacchi Silvia; Ceroti Marco; Palli Domenico. (Molecular & Nutritional Epidemiology Unit, CSPO, Istituto Scientifico della Regione Toscana, Florence, Italy.. g.masala@cspo.it) . Tumori, (2003 Nov-Dec) 89 (6) 636-45. Journal code: 0111356. ISSN: 0300-8916. Pub. country: Italy. Language: English.
- AB A representative sample of the general population residing in the city of Florence was invited to participate in the local section of the EPIC study with two major **aims:** i) to carry out a population-based survey on dietary and life-style habits in this urban area of Tuscany, Central Italy; ii) to compare these results with a large series of EPIC volunteers residing in the same municipality in order to evaluate the differences between the two groups. A random sample of 500 residents (250 women) aged 40-64 years, was invited to participate in the study; 362/500 (72.4%) accepted and followed the EPIC protocol. The distribution of selected individual characteristics (including measured weight and height) showed a high prevalence of being overweight in men (52.2%) and obesity in both sexes (17.4% in men and 12.5% in women). A dietary pattern characterized by a high consumption of red meat, processed meats, olive oil and wine emerged in both sexes; the consumption of vegetables and fresh fruit was approximately 200 and 300 g/day, respectively. The estimated mean intakes of macronutrients reflected this pattern, with a high mean intake of total fat and protein. The mean

contribution to total caloric intake provided by fat was 30.9% and 33.6% in these randomly sampled men and women, respectively. The results were compared with those of 9,123 Florence residents aged 40-64 years and enrolled as EPIC volunteers. Current smokers and less educated subjects were less represented among male volunteers, who, in general, showed a healthier dietary pattern (more fresh fruit and less spirits). Female volunteers were taller and heavier and consumed more fresh fruit but also more beef and less carbohydrates. Other statistically significant differences emerged, but the absolute values of these differences were usually modest and the two groups appeared remarkably similar. Overall, our results suggest that the large EPIC-Florence cohort was not strictly selected and showed a total caloric intake and a range of dietary variability similar to that of the general population of the same area.

- L20 ANSWER 12 OF 149 MEDLINE on STN DUPLICATE 9
 2003114905. PubMed ID: 12628621. Substance use in the general hospital. Kouimtsidis Christos; Reynolds Martina; Hunt Mary; Lind Jackie; Beckett Jonathan; Drummond Colin; Ghodse Hamid. (Department of Addictive Behaviour and Psychological Medicine, St. George's Hospital Medical School, University of London, Cranmer Terrace, Tooting, London SW17 0RE, UK.. depad@sghms.ac.uk) . Addictive behaviors, (2003 Apr) 28 (3) 483-99. Journal code: 7603486. ISSN: 0306-4603. Pub. country: England: United Kingdom. Language: English.
- AB INTRODUCTION: People misusing substances are overrepresented in health settings. Substance misuse can also be an underlying factor complicating medical diagnosis and management. **AIMS:** (i) To establish the prevalence of substance misuse in the general hospital inpatient population; and (ii) to examine the relationship between medical diagnosis and substance misuse problem as identified by screening tools. **METHOD:** This study adopted a three-step screening approach including a prospective questionnaire survey, interview, and case note review. Subjects included all adult patients admitted to a London teaching hospital over a 1-week period. **RESULTS:** Seventy percent completed the questionnaire. Twenty-three percent was currently smoking, 14% was rated positive for alcohol misuse, and 12% positive for drug misuse. Only 65% of patients was screened for smoking, 54% for alcohol, and 9% for other substances. **CONCLUSIONS:** People misusing one substance were more likely to be misusing others, hence the importance of screening all patients for all substances. Doctors were screening a small percentage of patients and they identified and intervened with only the severe ones.

- L20 ANSWER 13 OF 149 MEDLINE on STN DUPLICATE 10
 2003052893. PubMed ID: 12562456. Helicobacter pylori strains and histologically-related lesions affect the outcome of triple eradication therapy: a study from southern Italy. Russo F; Berloco P; Cuomo R; Caruso M L; Di Matteo G; Giorgio P; De Francesco V; Di Leo A; Ierardi E. (Laboratory of Biochemistry, Scientific Institute for Digestive Diseases IRCCS Saverio de Bellis, Castellana Grotte, Bari, Italy. (Study from southern Italy). irccsbiochimica@libero.it) . Alimentary pharmacology & therapeutics, (2003 Feb) 17 (3) 421-8. Journal code: 8707234. ISSN: 0269-2813. Pub. country: England: United Kingdom. Language: English.
- AB BACKGROUND: Certain evidence suggests that Helicobacter pylori strains expressing genes for cytotoxin production show a higher sensitivity than non-cytotoxic organisms to eradication treatment. No data are available on the involvement of bacterium-related lesions in different therapeutic outcomes. **AIMS:** (i) To investigate whether differences in eradication rates may be related to the different expression of virulent strains (cagA, vacA, iceA) in patients undergoing proton pump inhibitor-based triple therapy, and (ii) to evaluate whether therapeutic outcome may be affected by bacterium-induced gastric lesions. **METHODS:** One hundred and ten H. pylori-positive subjects were enrolled. H. pylori was genotyped by polymerase chain reaction. Treatment consisted of lansoprazole-amoxicillin-clarithromycin, twice daily for 1 week. Eradication was checked by urea breath test. **RESULTS:** The eradication rate was 70%, and the absence of cagA was associated with unsuccessful

treatment. No difference between the groups with successful and unsuccessful eradication was found with regard to vacA and iceA. Lympho-epithelial lesions and fibrosis were associated with unsuccessful treatment. CONCLUSIONS: The present data confirm the importance of cagA (but not vacA and iceA) as a predictor of successful eradication. When fibrosis and lympho-epithelial lesions are present, therapy appears to be less effective. Therefore, these histological features may be involved in an unsuccessful therapeutic outcome.

L20 ANSWER 14 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

2003:366076 Document No. 139:203469 The fundamental constants and their variation. Observational and theoretical status. Uzan, Jean-Philippe (CNRS-FRE 2435, Institut d'Astrophysique de Paris, Paris, 75014, Fr.). Reviews of Modern Physics, 75(2), 403-455 (English) 2003. CODEN: RMPHAT. ISSN: 0034-6861. Publisher: American Physical Society.

AB A review. This article describes the various exptl. bounds on the variation of the fundamental consts. of nature. After a discussion of the role of fundamental consts., their definition and link with metrol., it reviews the various constraints on the variation of the fine-structure constant, the gravitational, weak- and strong-interaction couplings, and the electron-to-proton mass ratio. The review aims (i) to provide the basics of each measurement, (ii) to show as clearly as possible why it constrains a given constant, and (iii) to point out the underlying hypotheses. Such an investigation is of importance in comparing the different results and in understanding the recent claims of the detection of a variation of the fine-structure constant and of the electron-to-proton mass ratio in quasar absorption spectra. The theor. models leading to the prediction of such variation are also reviewed, including Kaluza-Klein theories, string theories, and other alternative theories. Cosmol. implications of these results are also discussed. The links with the tests of general relativity are emphasized.

L20 ANSWER 15 OF 149 MEDLINE on STN DUPLICATE 11

2003222185. PubMed ID: 12743691. [The spastic hand. Postoperative rehabilitation]. Die spastische Hand. Grundlagen der postoperativen Rehabilitation. Doll B. (Orthopadische Klinik und Poliklinik der Freien Universitat Berlin, Zentralklinik Emil von Behring, Trager: Stiftung Oskar-Helene-Heim.) Der Orthopade, (2003 May) 32 (5) 402-5. Journal code: 0331266. ISSN: 0085-4530. Pub. country: Germany: Germany, Federal Republic of. Language: German.

AB Postoperative rehabilitation starts with preoperative evaluation of the patient. The outcome of rehabilitation measures is strongly dependent on the surgeon's ability to define a realistic rehabilitation aim, i.e., a goal the patient can achieve with a high degree of probability. Therefore, knowledge of the patient's individual basic situation and status as well as of the autonomic development of the different categories of cerebral palsy is of great importance. The operative procedures used are well established in cerebral palsy surgery. They are accepted as standard procedures. The decisive question is to whom they are offered. The same conditions pertain to the postoperative rehabilitation period. During that time a combination of functional bracing and physiotherapy plus occupational therapy is offered after primary cast immobilization. This period is finished when the specific aim has been achieved, i.e., integration of the gained function into everyday life.

L20 ANSWER 16 OF 149 MEDLINE on STN DUPLICATE 12

2003434125. PubMed ID: 12974679. Gender-based differences in factors related to non-utilization of dental care in young Norwegians. A longitudinal study. Skaret Erik; Raadal Magne; Kvale Gerd; Berg Einar. (Center for Odontophobia, Faculty of Odontology, University of Bergen, Norway.. erik.skaret@odont.uib.no) . European journal of oral sciences, (2003 Oct) 111 (5) 377-82. Journal code: 9504563. ISSN: 0909-8836. Pub. country: Denmark. Language: English.

AB The present study had the following aims: (i): to

evaluate the utilization of dental care among young adults during the age period from 18 to 23 yr; and (ii) to explore possible characteristics at the age of 18 yr that may predict non-utilization of dental care at the age of 23 yr. Respondents from a random sample of adolescents that had been surveyed at the age of 18 yr (n = 968) were surveyed again at the age of 23 yr. The data were based on (1) baseline data collected at the age of 18 yr, and (2) a questionnaire mailed to the same subjects at the age of 23 yr. The response rate was 69%. The time since the last dental appointment at the age of 23 yr was longer for men than for women. Of the 2% that had not been to the dentist for the last 5 yr or more, the majority were men (69%). Multivariate logistic regression analyses showed that the following characteristics at the age of 18 yr were predictive of being included in a non-utilization group (n = 45) at the age of 23 yr: multiple fears (odds ratio (OR) = 3.0), treatment at the age of 18 yr not completed (OR = 2.5), and high dental anxiety (OR = 2.0 for women and OR = 1.2 for men). These gender differences may influence future strategies for prevention of dropout from care and possible interventions aimed at bringing adolescents back to regular dental care.

L20 ANSWER 17 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

2003509824 EMBASE Hopelessness and future thinking in parasuicide: The role of perfectionism. Hunter E.C.; O'Connor R.C.. Dr. R.C. O'Connor, Department of Psychology, University of Stirling, Stirling FK9 4CA, United Kingdom. roryoc@orange.net. British Journal of Clinical Psychology 42/4 (355-365) 2003.

Refs: 35.

ISSN: 0144-6657. CODEN: BJCPDW. Pub. Country: United Kingdom. Language: English. Summary Language: English.

AB Objectives. This study had three aims: (I) to independently replicate the future thinking effect, that parasuicides, when compared with controls, show a deficit in positive future thinking but no increase in negative future thinking; (2) to determine whether positive future thinking and socially prescribed perfectionism discriminate general hospital parasuicides from controls beyond measures of affect and; (3) to explore the relationship between future thinking and perfectionism. Design. A cross-sectional design was employed. Three groups of participants took part hospital parasuicide patients (N = 22), hospital controls (N = 22) and community controls (N = 21). Methods. Parasuicide patients admitted, via accident and emergency, to a general hospital were matched with hospital and community controls and assessed on measures of hopelessness, depression, anxiety, perfectionism, and future thinking. Results. There was evidence to support the future thinking effect. A discriminant function analysis revealed that social perfectionism and positive future thinking did indeed discriminate parasuicides from controls beyond the effects of hopelessness, depression, and anxiety. Exploratory relationships between perfectionism and positive future thinking were also reported. Conclusions. The results reinforce the importance of future thinking in parasuicide. Moreover, the role of social perfectionism in the suicidal process was elucidated and ought to be replicated within a prospective design.

L20 ANSWER 18 OF 149 MEDLINE on STN DUPLICATE 13

2003091674. PubMed ID: 12603233. Prevalence of alcohol dependence in a town in Nepal as assessed by the CAGE questionnaire. Jhingan H P; Shyangwa Pramod; Sharma Avneet; Prasad K M R; Khandelwal S K. (All India Institute of Medical Sciences, New Delhi, India.. hpjhingan@eth.net) . Addiction (Abingdon, England), (2003 Mar) 98 (3) 339-43. Journal code: 9304118. ISSN: 0965-2140. Pub. country: England: United Kingdom. Language: English.

AB BACKGROUND: In spite of a perception that alcohol use is rampant in Nepal, there has been no survey to assess the extent of alcohol dependence in the country. AIMS: (i) To assess prevalence of alcohol dependence in the community of Dharan and (ii) to correlate this with various socio-demographic characteristics. DESIGN: The CAGE questionnaire was administered to all adult individuals in houses selected randomly in

the township of Dharan. FINDINGS: Among 2344 adults assessed, the prevalence of alcohol dependence was found to be 25.8%. The prevalence of alcohol dependence increased with age to peak in the age group 45-54 years and was more than twice as common in men as in women. Also, alcohol dependence was more common among those with lower level of education, widowers and divorcees and those belonging to the Matwali community. The extent of dependence was influenced by socio-cultural sanctions. CONCLUSIONS: The prevalence of alcohol dependence is too high for comfort in Dharan, a town in eastern Nepal. There is an urgent need to formulate a policy for substance abuse in the country taking into account the findings of this study.

L20 ANSWER 19 OF 149 MEDLINE on STN

2003220225. PubMed ID: 12741700. Understanding, resisting, and overcoming oppression: toward psychopolitical validity. Prilleltensky Isaac. (Department of Human and Organizational Development, Peabody College, Box 90, Vanderbilt University, Nashville, Tennessee 37203, USA.. isaac.prilleltensky@vanderbilt.edu) . American journal of community psychology, (2003 Mar) 31 (1-2) 195-201. Journal code: 0364535. ISSN: 0091-0562. Pub. country: United States. Language: English.

AB My first objective in this paper is to synthesize, synoptically, the literature on oppression and liberation with the contributions to this special issue. To fulfil this aim I introduce a framework for understanding, resisting, and overcoming oppression. The framework consists of psychopolitical well-being; experiences, consequences, and sources of oppression; and actions toward liberation. Each of these components is subdivided into 3 domains of oppression and well-being: collective, relational, and personal. Experiences of suffering as well as resistance and agency are part of the framework. My second objective is to offer ways of closing the gap between research and action on oppression and liberation. To do so I suggest 2 types of psychopolitical validity: epistemic and transformative.

L20 ANSWER 20 OF 149 MEDLINE on STN

DUPLICATE 14

2003027955. PubMed ID: 12534641. NAT2 and CYP1A2 phenotyping with caffeine: head-to-head comparison of AFMU vs. AAMU in the urine metabolite ratios. Nyeki A; Buclin T; Biollaz J; Decosterd L A. (Group of Pharmaceutical Analysis, Section of Pharmacy, University of Lausanne, Lausanne, Switzerland.) British journal of clinical pharmacology, (2003 Jan) 55 (1) 62-7. Journal code: 7503323. ISSN: 0306-5251. Pub. country: England: United Kingdom. Language: English.

AB AIMS: (i) To compare the phenotyping of healthy subjects for NAT2 and CYP1A2 activities with caffeine, by the simultaneous assay of the urinary metabolites AFMU and AAMU, and (ii) to ascertain whether NAT2 and CYP1A2 phenotyping is influenced by the use of AFMU or AAMU in the metabolite ratio. METHODS: Thirty-five healthy subjects (16 men, 19 women) participated to the study. Caffeine metabolite concentrations were measured in urine collected 8 h after 2.5 mg kg⁻¹ caffeine intake using a new validated h.p.l.c. method. The metabolite ratios AFMU/1X, AFMU/(AFMU+1X+1U), AAMU/1X, AAMU/(AAMU+1X+1U), and (AFMU+1U+1X)/17U, (AAMU+1U+1X)/17U were determined as indices of NAT2 and CYP1A2 activity, respectively. RESULTS: Slow and rapid acetylators were similarly identified using the four NAT2 metabolite ratios in 139 out of 140 measurements. An appreciable amount of AAMU was present in urine that was immediately acidified and analysed. Consequently, the ratio using AFMU was lower than that using total AAMU following transformation of AFMU in basic conditions. The proportion of AFMU in urine analysed immediately expressed as AFMU/(AFMU+AAMU) ratio did not correlate with urine pH, but was a function of the acetylation phenotype, with a low intergroup variability (64 +/- 3% and 32 +/- 5%, for rapid and slow acetylators, respectively; P < 0.00001, anova). Regarding CYP1A2 activity, a good correlation (r = 0.99) was observed between the metabolite ratios calculated from AFMU and AAMU, although the ratios calculated from AFMU were proportionately and systematically lower P < 0.00001, paired t-test, slope 1.2). CONCLUSIONS: This study demonstrates that both AFMU and AAMU

can be used for NAT2 and CYP1A2 metabolite ratio determinations. The reported conversion of AFMU into AAMU is unlikely to explain the large amount of AAMU in urine that was acidified and analysed immediately after voiding. The results suggest that AAMU is formed not solely through a nonenzymatic hydrolysis in urine, but in vivo by a NAT2 phenotype-dependent pathway.

L20 ANSWER 21 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 2004:34022 Document No.: PREV200400032118. POPULATION-BASED COLONOSCOPY SCREENING FOR COLORECTAL CANCER: HIGH PARTICIPATION RATES ARE NOT AFFECTED BY SOURCE OF INVITATION. Corbett, Mike [Reprint Author]; Chambers, Sharon [Reprint Author]; Shadbolt, Bruce [Reprint Author]; Taupin, Doug [Reprint Author]. Garran, ACT, Australia. Digestive Disease Week Abstracts and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. M2122. e-file. Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society for Surgery of the Alimentary Tract. Language: English.

AB BACKGROUND: Colonoscopic screening for colorectal cancer (CRC) may be the most cost-effective strategy in years of life saved. The success of screening depends critically on high participation rates, and the best recruitment strategy has not been determined. Studies of population-based fecal occult blood testing have shown participation rates are improved when invitation to screening comes from a family physician known to the patient (Hardcastle JD Lancet 1983; 2:1-4). AIMS: (i) To compare response rates, positive response rates and participation rates of a random population sample and a Family Physician sample; (ii) To determine the proportion of respondents not eligible for or not requiring screening, thereby determining a better estimate of the screening population size; (iii) To determine polyp prevalence in a sample of 250 colonoscopies. METHODS: In the first recruitment strategy, 1000 persons aged 55-74 were randomly selected from the state Electoral Register and cross-referenced against the state Cancer Registry. Invitations were mailed to 357 of these persons. In the second strategy, Family Physicians from six geographical clusters selected 134 persons at random. Written invitations were then co-signed by the investigators. Questionnaires were administered to determine knowledge of CRC and colonoscopy, and quality of life, before and after colonoscopy. RESULTS: As at December 2002, the overall response rate to written invitations were 61% (n=80) and 59% (n=218) from Electoral Register and Family Physician invitees respectively. The positive response rate was 46% in both strategies. Ninety-two persons were ineligible with 64 having had colonoscopy in the previous ten years. One hundred and one colonoscopies have been performed with adenomatous polyps present in 27 subjects (27%); four of these subjects had advanced lesions (15%). CONCLUSIONS: These data show (i) Participation rates are not superior when invitations are sent by Family Physicians; (ii) Colonoscopy is a highly acceptable screening method to consumers; (iii) In centres with good access to care, the eligible (true screening) population may be much smaller than anticipated.

L20 ANSWER 22 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 2004:145984 Document No.: PREV200400145803. Dendritic spine stability and post - synaptic maturation in mouse hippocampal primary culture. Toresson, H. [Reprint Author]; Grant, S. G. N. [Reprint Author]. Div. of Neurosci., Univ. of Edinburgh, Edinburgh, UK. Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 783.22. <http://sfn.scholarone.com>. e-file. Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience. Language: English.

AB The formation of new synapses in the adult brain has been hypothesised to be a consequence of, and potentially important for, learning and synaptic plasticity. There is also data suggesting that there is a constant turn-over of synapses in the mature brain which means it is possible there

exists an equilibrium between deleted and newly formed synapses. The dynamics of these processes are largely unknown and we are attempting to mimic them in a primary hippocampal serum free culture system with the **aims:** i) to see if synapse stability can be affected by pharmacological or genetic means and ii) to study the sequence of post synaptic maturation in newly formed spines in mature cultures. The system has been set up so that dendritic segments can be imaged over consecutive days to allow detection and quantification of newly formed as well as pruned dendritic spines. Hence, over the days of imaging, spine stability can be assessed. By varying the imaging interval we can fix newly formed spines at different stages of maturation and use immunocytochemistry to detect the order of appearance of post-synaptic proteins such as scaffolding proteins and neurotransmitter receptor subunits. In our evaluation of the system we found that about 10% of the spines turn over in 24 hours in 2-3 week old cultures. The effect of the NMDA-receptor antagonist AP-5 (100 microm) has been tested and in our initial experiments, somewhat surprisingly, found not to have a profound effect on spine number or stability over 24 or 48 hours. The same results were obtained with the GABA-receptor antagonist picrotoxin (100 microm).

L20 ANSWER 23 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 2003:568600 Document No.: PREV200300563460. PROBIOTICS BY THE PARENTERAL ROUTE - EFFICACY IN MURINE COLITIS AND ARTHRITIS. Sheil, Barbara [Reprint Author]; McCarthy, Jane [Reprint Author]; O'Mahony, Liam [Reprint Author]; Bennett, Michael [Reprint Author]; Ryan, Paul [Reprint Author]; Collins, John K. [Reprint Author]; Shanahan, Fergus [Reprint Author]. Cork, Ireland. Digestive Disease Week Abstracts and Itinerary Planner, (2003) Vol. 2003, pp. Abstract No. 586. e-file. Meeting Info.: Digestive Disease 2003. FL, Orlando, USA. May 17-22, 2003. American Association for the Study of Liver Diseases; American Gastroenterological Association; American Society for Gastrointestinal Endoscopy; Society for Surgery of the Alimentary Tract. Language: English.

AB Background: We and others have reported the prophylactic efficacy of oral consumption of probiotic lactobacilli in the IL-10 KO model of colitis. A similar effect in arthritis has also been claimed. While modification of the enteric flora or mucosal immunomodulation is the conceptual underpinning of this strategy, it has not been demonstrated that the oral route of administration is essential for probiotic efficacy. **Aims** : (i) To determine the effect of parenteral administration (s.c.) of *Lactobacillus salivarius* 118 on colitis in IL-10 KO mice; (ii) to determine if observed responses are disease-specific (by comparison with a collagen-induced murine model of arthritis). **Methods:** (i) IL-10 KO mice were injected s.c. with *L. salivarius* 118 or saline (n = 10/group) at 3-4 week intervals over 19 weeks. At sacrifice, the bowels were histologically scored. Splenocytes were isolated and cultured in vitro with/without a bacterial stimulant. Supernatant cytokine levels were measured by ELISA. (ii) for the arthritis disease control, DBA/1 mice were injected subcutaneously with the probiotic or saline over 13 weeks and during this period arthritis was induced (by collagen injection). The severity of arthritis in the DBA/1 mice was scored daily. At sacrifice, paw thickness was measured and joints were histologically scored. **Results:** (i) Colonic inflammatory scores were significantly decreased in the group of IL-10 KO mice injected with *L. salivarius* 118 compared with controls (p<0.05). Pro-inflammatory cytokine production (TNFalpha, IL-12 and IFNgamma) from stimulated splenocytes was significantly lower for the probiotic group, whereas TGFbeta levels were significantly increased (p<0.05). (ii) Scoring of arthritis and paw thickness were significantly improved in the group of DBA/1 mice injected with *L. salivarius* 118 compared with controls. **Conclusions:** (1) Subcutaneous administration of *L. salivarius* 118 significantly attenuated colitis in the IL-10 KO model and suppressed collagen-induced arthritis, suggesting that the oral route may not be essential for probiotic anti-inflammatory effects and that responses are not disease-specific. (2) The probiotic effect was associated with reduced production of pro-inflammatory (TH1) cytokines and

maintained production of anti-inflammatory TGFbeta..

L20 ANSWER 24 OF 149 MEDLINE on STN DUPLICATE 15
2002484022. PubMed ID: 12269971. Performance characteristics of
scintigraphic transit measurements for studies of experimental therapies.
Cremonini F; Mullan B P; Camilleri M; Burton D D; Rank M R. (Clinical
Enteric Neuroscience Translational and Epidemiological Research Program,
Mayo Clinic and Mayo Foundation, Rochester, MN 55905, USA.) Alimentary
pharmacology & therapeutics, (2002 Oct) 16 (10) 1781-90. Journal code:
8707234. ISSN: 0269-2813. Pub. country: England: United Kingdom. Language:
English.

AB BACKGROUND: The intra- and inter-individual reproducibility of
gastrointestinal and colonic transit tests require full characterization.
AIMS: (i) To characterize the normal values and
reproducibility effects of age and gender on the scintigraphic transit of
solids in health. (ii) To compare scintigraphic and radio-opaque marker
measurements of colonic transit. (iii) To estimate demonstrable effect
sizes for different transit end-points based on observed variations.
METHODS: A scintigraphic gastrointestinal and colonic transit study and
the mean colonic transit time were measured using radio-opaque markers in
37 healthy volunteers; 21 subjects had a repeat scintigraphic test 3 weeks
later. RESULTS: Gastric emptying at 4 h was highly reproducible
(coefficient of variation, 4%) on repeat testing. The colonic measurement
varied by more than 1 geometric centre unit in 37% of subjects at 24 h and
in 26% of subjects at 48 h. There were no age- or gender-related
differences in transit. Effect sizes demonstrable with 14 subjects per
group were in the range previously shown to be clinically relevant: 25%
change in gastric emptying at 4 h; 1.5 geometric centre unit change in
colonic transit at 48 h. CONCLUSIONS: These data demonstrate the
reproducibility and performance to be expected of transit measurements and
are essential for designing studies in experimental therapeutics.

L20 ANSWER 25 OF 149 MEDLINE on STN DUPLICATE 16
2002369116. PubMed ID: 12113432. Normative vs. attitudinal considerations
in breastfeeding behavior: multifaceted social influences in a developing
country context. Goksen Fatos. (School of Arts and Sciences, Koc
University, Sariyer, Istanbul, Turkey.. fgoksen@ku.edu.tr) . Social
science & medicine (1982), (2002 Jun) 54 (12) 1743-53. Journal code:
8303205. ISSN: 0277-9536. Pub. country: England: United Kingdom. Language:
English.

AB The aim of the paper is to test the basic assumptions underlying the
theory of reasoned action (TRA) for exclusive breastfeeding behavior
taking place in the rather complicated social environment of women who
have just given birth. The paper aims (i) to argue
that normative rather than attitudinal considerations are more important
in engaging the correct breastfeeding behavior, and (ii) to demonstrate
that the TRA concept of social norm should be treated as a multi-layered
construct which involves several enabling factors in predicting complex
behaviors such as breastfeeding. Data were collected in three phases as
part of a prospective cohort follow-up design. The first phase of data
collection was conducted in the hospital with mothers after the delivery.
Two follow-up questionnaires were administered at the end of the first and
second months. Results did not confirm the assertions of the TRA.
Logistic regression models and multiple regression analyses indicated that
intention and belief/attitude measures taken at the time of birth did not
predict end-of-first-month full breastfeeding behavior. Overall, results
revealed that intention by itself was not a strong determinant of
breastfeeding unless it was conditioned by enabling factors such as social
support and subjective norms regarding breastfeeding.

L20 ANSWER 26 OF 149 MEDLINE on STN DUPLICATE 17
2002395740. PubMed ID: 12144574. Gastric mucosal atrophy: interobserver
consistency using new criteria for classification and grading. Rugge M;
Correa P; Dixon M F; Fiocca R; Hattori T; Lechago J; Leandro G; Price A B;
Sipponen P; Solcia E; Watanabe H; Genta R M. (Department of Oncology and

Surgical Sciences, University of Padova, Italy.) Alimentary pharmacology & therapeutics, (2002 Jul) 16 (7) 1249-59. Ref: 46. Journal code: 8707234. ISSN: 0269-2813. Pub. country: England: United Kingdom. Language: English.

AB BACKGROUND AND AIMS: Considerable difficulties persist amongst pathologists in agreeing on the presence and severity of gastric atrophy. An international group of pathologists pursued the following aims : (i) to generate an acceptable definition and a simple reproducible classification of gastric atrophy; and (ii) to develop guidelines for the recognition of atrophy useful for increasing agreement among observers. METHODS: After redefining atrophy as the 'loss of appropriate glands' and examining histological samples from different gastric compartments, three categories were identified: (i) negative; (ii) indefinite; (iii) atrophy, with and without intestinalization. Atrophy was graded on a three-level scale. Interobserver reproducibility of the classification was tested by kappa statistics (general and weighted) in a series of 48 cases. RESULTS: The medians of the general agreement and weighted kappa values were 0.78 and 0.73, respectively. The weighted kappa coefficients, obtained by cross-tabulating the evaluation of each pathologist against all others, were, with only one exception, > 0.4 (moderate to excellent agreement). CONCLUSIONS: By using the definition of atrophy as the loss of appropriate glands and distinguishing the two main morphological entities of metaplastic and non-metaplastic types, a high level of agreement was achieved by a group of gastrointestinal pathologists trained in different cultural contexts.

L20 ANSWER 27 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 18

2002:482601 Document No.: PREV200200482601. Determinants of plant species richness on small Bahamian islands. Morrison, Lloyd W. [Reprint author]. Center for Medical, Agricultural and Veterinary Entomology, USDA-ARS, PO Box 14565, Gainesville, FL, 32604, USA. lmorrison@gainesville.usda.ufl.edu . Journal of Biogeography, (July, 2002) Vol. 29, No. 7, pp. 931-941. print.

ISSN: 0305-0270. Language: English.

AB Aim: I investigated the determinants of plant species richness in two archipelagos, comparing the predictive power of different explanatory variables. I evaluated both conventional variables and alternative variables not commonly used in such analyses. I also investigated the effect of island location in relation to neighbouring landmasses on plant species richness and the predictive ability of regression models. Location: Archipelagos of small islands in the central Exumas and near the north-east coast of Andros, Bahamas. Methods: I surveyed plant species richness and obtained measures of seven predictor variables: total island area, the ratio of perimeter to total area, vegetated area, the ratio of vegetated area to total area, distance to the nearest large island, elevation and protection from surrounding islands. All seven predictor variables were evaluated as determinants of plant species richness in simple and stepwise multiple linear regressions. Analyses were conducted for each archipelago overall, and then separately for three categories of islands in the Exumas. Total area, elevation, and distance were evaluated as predictors of vegetation incidence in simple and stepwise multiple logistic regressions for both archipelagos. Results: Some expression of insular area was always the best single predictor of plant species richness in the linear regressions. Total area was a relatively poor predictor compared with other expressions of insular area. Distance, elevation, and protection explained relatively little of the overall variation in plant species number, although all variables were selected as significant in some models. A greater amount of variation in plant species richness was explained by the linear regression models in the Exumas (69.0%) compared with Andros (60.9%). Different variables were entered into the models for the three categories of islands in the Exumas, and adjusted coefficients of multiple determination ranged from 68.9% to 85.7%. In the logistic regressions, the model including total area and distance yielded almost 90% correct classification of vegetation incidence

in the Exumas; no significant variables were selected for Andros. A group of exposed, outer islands supported many fewer species than more sheltered islands, on the basis of total island area or elevation. Main conclusions: The three variables commonly used in studies of determinants of insular species richness - total island area, distance, and elevation - were relatively poor predictors in most analyses. Alternative expressions of insular area - indicative of disturbance or shape in combination with area - were usually better predictors than total area and may more realistically reflect habitable area. Alternative predictors explained similar amounts of variation in plant species richness compared with commonly used predictors, and combinations of all variables into a single stepwise model resulted in increased predictive power. The predictive power of the models tended to be higher for groups of islands that were more sheltered by neighbouring islands. Exposed islands, although separated by relatively small distances from nearby protected islands, may be impacted by storms much more severely and possess many fewer species. The location of small islands relative to large landmasses, as well as their geological histories, should be taken into account in such analyses.

L20 ANSWER 28 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 19

2002:488764 Document No.: PREV200200488764. A conceptual framework for studying species composition in fragments, islands and other patchy ecosystems. Watson, David M. [Reprint author]. Applied Ornithology Group, Johnstone Centre, Charles Sturt University, Thurgoona, NSW, 2640, Australia. dwatson@csu.edu.au. Journal of Biogeography, (May-June, 2002) Vol. 29, No. 5-6, pp. 823-834. print. ISSN: 0305-0270. Language: English.

AB **Aim:** I propose and develop a new classification system to explain diversity patterns in habitat fragments, equally applicable to islands and other inherently patchy ecosystems. My primary goal is to provide an inclusive model to improve the comparability of studies and enhance future efforts to synthesize their findings, yielding a generalized basis for understanding species composition in patchy ecosystems. Results: Differentiating islands from fragments and incorporating patch age and patch: matrix contrast, eight classes of patch are distinguished, spanning a range of geographical features. To compare studies of diversity patterns among and between patch types, patch biota are divided into three categories based on their origin-relict species (present before fragmentation), matrix-derived species and interpatch dispersers. Applying this novel scheme to existing data, the effects of insularization are synthesized. Direct comparisons among fragments revealed broad similarity in the long-term effects of habitat fragmentation compared with highly divergent patterns in younger landscapes (<200 years). Holding patch: matrix contrast and age constant, fragments and islands were compared. Despite initial differences in community assembly, the biota of islands and fragments converge in several properties over time, as diversities stabilize and patch biotas become distinct from the surrounding matrix. Main conclusions: Although necessarily broad, this framework provides an explicit context within which to test forty-four specific predictions regarding the distribution of diversity in patchy landscapes and thereby gain a clearer understanding of the long-term biological consequences of insularization. I propose that the fragments-as-islands analogy be revisited, potentially yielding valuable insight into the long-term future awaiting anthropogenically altered ecosystems.

L20 ANSWER 29 OF 149 MEDLINE on STN DUPLICATE 20
2002714211. PubMed ID: 12423292. Assessment of periodontal conditions and systemic disease in older subjects. II. Focus on cardiovascular diseases. Persson R E; Hollender L G; Powell V L; MacEntee M; Wyatt C C L; Kiyak H A; Persson G R. (Department of Oral Medicine, University of Washington, Seattle, WA, USA.. rper@u.washington.edu) . Journal of clinical periodontology, (2002 Sep) 29 (9) 803-10. Journal code: 0425123. ISSN: 0303-6979. Pub. country: Denmark. Language: English.

AB BACKGROUND: Panoramic radiographs (PMX)s may provide information about systemic health conditions. AIMS: i). To study clinical periodontal conditions and collect self-reported health status in a cohort of 1084 older subjects; ii). to study signs of alveolar bone loss and carotid calcification from panoramic radiographs obtained from these subjects; and iii). to study associations between study parameters. MATERIAL AND METHODS: PMXs from 1064 adults aged 60-75 (mean age 67.6, SD +/- 4.7) were studied. Signs of alveolar bone loss, vertical defects, and molar furcation radiolucencies defined periodontal status. Medical health histories were obtained via self-reports. Signs of carotid calcification were identified from panoramic radiographs. RESULTS: The PMX allowed assessment of 53% of the films (Seattle 64.5% and Vancouver 48.4%). A self-reported history of a stroke was reported by 8.1% of men in Seattle and 2.9% of men in Vancouver ($P < 0.01$). Heart attacks were reported by 12% of men in Seattle and 7.2% in Vancouver (N.S.). PMX evidence of periodontitis was found in 48.5% of the subjects, with carotid calcification in 18.6%. The intraclass correlation score for PMX findings of carotid calcification and stroke was 0.24 (95% CI: 0.10-0.35, $P < 0.001$). The odds ratio for PMX carotid calcification and periodontitis was 2.1 (95% CI: 1.3-3.2, $P < 0.001$), and for PMX carotid calcification and stroke 4.2 (95% CI: 1.9-9.1, $P < 0.001$). The associations disappeared when smoking was accounted for. A history of a heart attack was associated with stroke, gender, age, and PMX scores of alveolar bone loss. CONCLUSIONS: PMXs may provide valuable information about both oral conditions and signs of carotid calcification, data that are consistent with self-reported health conditions. Alveolar bone loss as assessed from PMXs is associated with cardiovascular diseases.

L20 ANSWER 30 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
2003:41025 The Genuine Article (R) Number: 628AJ. Definition and assessment of specific occupational demands concerning lifting, pushing, and pulling based on a systematic literature search. Bos J (Reprint); Kuijer P P F M; Frings-Dresen M H W. Univ Amsterdam, Acad Med Ctr, Coronel Inst Occupat & Environm Hlth, POB 22700, NL-1100 DE Amsterdam, Netherlands (Reprint); Univ Amsterdam, Acad Med Ctr, Coronel Inst Occupat & Environm Hlth, NL-1100 DE Amsterdam, Netherlands. OCCUPATIONAL AND ENVIRONMENTAL MEDICINE (DEC 2002) Vol. 59, No. 12, pp. 800-806. Publisher: BRITISH MED JOURNAL PUBL GROUP. BRITISH MED ASSOC HOUSE, TAVISTOCK SQUARE, LONDON WC1H 9JR, ENGLAND. ISSN: 1351-0711. Pub. country: Netherlands. Language: English.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Aims: (1) To find a universal strategy for the identification of specific demands of a job or task, focusing on occupations in which there may be an increased risk for health complaints owing to these specific demands. (2) To select reliable and valid tests concerning lifting, pushing, and pulling, which consider the relation between occupational work demands and the assessment of the maximally acceptable load on an individual level.
Methods: Literature search was performed using Medline (1988 to May 2001), Embase (1966 to May 2001), and NIOSHTIC (1971-98).
Results: No universal strategy was found for the definition of specific occupational demands. Therefore a "three step strategy" was formulated for defining specific occupational demands in a job or a task in order to prevent health complaints on an individual level. Many tests were found in the literature concerning lifting, but only a few concerning pushing and pulling. None of the tests concerning pushing, pulling, or lifting considered the relation between work demands and the assessment of the maximally acceptable load on an individual level. Furthermore, none of the tests met the criteria of reliability and prognostic value for musculoskeletal complaints completely. Only for the prognostic value of relative strength capacity tests concerning pushing pulling and lifting, did there appear to be limited proof for the development of musculoskeletal complaints.

Conclusions: In general, for the prevention of work related health complaints, it can be suggested that more attention should be paid to: (1) the definition of specific occupational demands; (2) the assessment of

specific occupational demands; and (3) the quality of tests for specific occupational demands.

- L20 ANSWER 31 OF 149 MEDLINE on STN DUPLICATE 21
2002714210. PubMed ID: 12423291. Assessment of periodontal conditions and systemic disease in older subjects. I. Focus on osteoporosis. Persson R E; Hollender L G; Powell L V; MacEntee M I; Wyatt C C L; Kiyak H A; Persson G R. (Department of Oral Medicine, University of Washington, Seattle, WA, USA.. rper@u.washington.edu) . Journal of clinical periodontology, (2002 Sep) 29 (9) 796-802. Journal code: 0425123. ISSN: 0303-6979. Pub. country: Denmark. Language: English.
- AB BACKGROUND: Osteoporosis (OPOR) is a common chronic disease, especially in older women. Patients are often unaware of the condition until they experience bone fractures. Studies have suggested that OPOR and periodontitis are associated diseases and exaggerated by cytokine activity. Panoramic radiography (PMX) allows studies of mandibular cortical index (MCI), which is potentially diagnostic for OPOR. AIMS: i). To study the prevalence of self-reported history of OPOR in an older, ethnically diverse population, ii). to assess the agreement between PMX/MCI findings and self-reported OPOR, and iii). to assess the likelihood of having both a self-reported history of OPOR and a diagnosis of periodontitis. MATERIALS AND METHODS: PMX and medical history were obtained from 1084 subjects aged 60-75 (mean age 67.6, SD +/- 4.7). Of the films, 90.3% were useful for analysis. PMXs were studied using MCI. The PMXs were used to grade subjects as not having periodontitis or with one of three grades of periodontitis severity. RESULTS: A positive MCI was found in 38.9% of the subjects, in contrast to 8.2% self-reported OPOR. The intraclass correlation between MCI and self-reported OPOR was 0.20 ($P < 0.01$). The likelihood of an association between OPOR and MCI was 2.6 (95%CI: 1.6, 4.1, $P < 0.001$). Subjects with self-reported OPOR and a positive MCI had worse periodontal conditions ($P < 0.01$). The Mantel-Haentzel odds ratio for OPOR and periodontitis was 1.8 (95%CI: 1.2, 2.5, $P < 0.001$). CONCLUSIONS: The prevalence of positive MCI was high and consistent with epidemiological studies, but only partly consistent with a self-reported history of osteoporosis with a higher prevalence of positive MCI in Chinese women. Horizontal alveolar bone loss is associated with both positive self-reported OPOR and MCI.

- L20 ANSWER 32 OF 149 MEDLINE on STN
2002325222. PubMed ID: 12067395. Benner's remnants: culture, tradition and everyday understanding. Paley John. (Department of Nursing and Midwifery, University of Stirling, Stirling, UK.. j.h.paley@stir.ac.uk) . Journal of advanced nursing, (2002 Jun) 38 (6) 566-73. Journal code: 7609811. ISSN: 0309-2402. Pub. country: England: United Kingdom. Language: English.
- AB BACKGROUND: Benner's account of meaning and embodiment in nursing depends on a theory which she has never fully articulated, although she makes numerous allusions to it. Behind the background of shared meanings hovers something called 'culture', which provides each individual with meaning, determines what counts as real for her, and actively hands down interpretation-laden practices. This view is based, Benner claims, on the Heideggerian assumption that the meaning and organization of a culture precedes individual meaning-giving activity. AIM: I explore Benner's implicit view of culture, drawing on her published work over 15 years, and offer an appraisal of it. In doing so, I attempt to make sense of some rather strange remarks Benner has recently made about 'remnants' of Cartesian and Kantian thinking being found in the everyday understandings of people with asthma. METHODS: The concept of culture is developed with reference to both Benner's own work and that of the anthropologist, Clifford Geertz, whose work she frequently cites. Having identified the principal tenets of what we might conveniently call the Benner-Geertz theory, I proceed to interrogate the theory, using the recent anthropological literature -- and, in particular, materialist attacks on the idea of culture as a system of meanings -- in order to cast doubt on it. I also review, very briefly, an alternative way of understanding 'culture', which is not vulnerable to the same criticisms.

CONCLUSIONS: Benner's implicit theory of culture is revealed, somewhat ironically, as an inverted form of Cartesian dualism. Its intellectual provenance is not Heidegger, who appears to reject it, but the sort of American sociology associated with Talcott Parsons. As a corollary, it is suggested that Benner's 'remnants' analogy cannot be justified, and that the idea of Cartesian and Kantian concepts permeating Western culture, infecting both the providers and receivers of health care, is a myth.

L20 ANSWER 33 OF 149 MEDLINE on STN DUPLICATE 22
 2002185160. PubMed ID: 11889072. Aberrant P-cadherin expression is an early event in hyperplastic and dysplastic transformation in the colon. Hardy R G; Tselepis C; Hoyland J; Wallis Y; Pretlow T P; Talbot I; Sanders D S A; Matthews G; Morton D; Jankowski J A Z. (Department of Surgery, University of Birmingham, Birmingham, UK.. r.g.hardy@bham.ac.uk) . Gut, (2002 Apr) 50 (4) 513-9. Journal code: 2985108R. ISSN: 0017-5749. Pub. country: England: United Kingdom. Language: English.

AB BACKGROUND: Colorectal adenomatous and, probably, hyperplastic polyp development requires epithelial remodelling and stratification, with loss of E-cadherin expression implicated in adenoma formation. We have shown that P-cadherin, normally expressed in stratified epithelia and placenta, is aberrantly expressed in disturbed epithelial architecture associated with colitis. AIMS: (i) To investigate the role of P-cadherin in colonic polyp formation. (ii) To ascertain whether expression of P-cadherin is independent of or correlated with expression of its associated proteins--E-cadherin, beta-catenin, and gamma-catenin. (iii) To determine if P-cadherin is functional regarding catenin binding in polyps. METHODS: Expression and localisation of cadherins (E- and P-) and their associated catenins (beta- and gamma-) were determined in aberrant crypt foci (ACF), in polyps with hyperplastic morphology (hyperplastic polyps and serrated adenomas), and in adenomatous polyps by immunohistochemistry, western blotting, and mRNA in situ hybridisation. Assessment of cadherin-catenin binding was evaluated by co-immunoprecipitation. Adenomatous polyposis coli (APC) mutation was assessed in adenomatous polyps. RESULTS: P-cadherin was expressed from ACF through to hyperplastic and adenomatous polyps. Alterations in E-cadherin and catenin expression occurred later, with variant patterns in (i) ACF, (ii) hyperplastic polyps and serrated adenomas, and (iii) adenomatous polyps. P-cadherin present in adenomas was functional with regard to catenin binding, and its expression was independent of APC mutational status. CONCLUSIONS: P-cadherin is aberrantly expressed from the earliest morphologically identifiable stage of colonocyte transformation, prior to changes in E-cadherin, catenin, and APC expression/mutation. P-cadherin expression alone does not predict tissue morphology, and such expression is independent of that of associated cadherins and catenins.

L20 ANSWER 34 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
 2002447564 EMBASE Well-differentiated thyroid carcinoma: Factors predicting recurrence and survival. Lim L.H.Y.; Soo K.C.; Chong Y.K.; Gao F.; Hong G.S.; Lim T.H.. K.C. Soo, Department of General Surgery, Singapore National Cancer Center, Singapore, Singapore. admskc@nccs.com.sg. Singapore Medical Journal 43/9 (457-462) 1 Sep 2002. Refs: 20. ISSN: 0037-5675. CODEN: SIMJA3. Pub. Country: Singapore. Language: English. Summary Language: English.

AB Aims: 1) Determine the patient and tumour characteristics for well-differentiated thyroid carcinoma - towards developing a unique risk classification for our largely Chinese population. 2) Assess extent of thyroid surgery required. 3) Document prognostic value of UICC and AMES classification. Methods: Retrospective review of 175 patients treated for primary thyroid epithelial malignancy by the Department of General Surgery at the Singapore General Hospital. Results: There were 78% papillary carcinomas (PC) and 19% follicular carcinomas (FC). Female: male ratio was 3:1. Patient distribution in the

UICC stages I, II, III, IV is respectively 56, 11, 31 and 2%. Twenty-six percent had hemithyroidectomy, and 74% total thyroidectomy. Neck dissections were required in 6% of FC compared to 34% of PC. Mean follow-up was 40 months. Extent of surgery did not affect PC/FC survival nor recurrence rates ($p=0.53$ and 0.06 respectively). Recurrences occurred in 15% FC and 9% PC. Death occurred in one FC and two PC. Survival correlated with UICC stage I/II and stage III/IV groups ($p=0.04$), and recurrence correlated with AMES High and Low Risk groups ($p=0.004$). No statistically significant difference was shown for survival between PC and FC or AMES groups and recurrence between PC and FC or UICC groups. Conclusions: Extent of thyroid surgery does not significantly affect local recurrences of PC/FC. The characterisation of thyroid carcinoma here is an important step towards developing a risk classification unique to our largely Chinese population.

L20 ANSWER 35 OF 149 MEDLINE on STN DUPLICATE 23
 2002444077. PubMed ID: 12201833. Malnutrition, zinc supplementation and catch-up growth: changes in insulin-like growth factor I, its binding proteins, bone formation and collagen turnover. Doherty C P; Crofton P M; Sarkar M A K; Shakur M S; Wade J C; Kelnar C J H; Elmlinger M W; Ranke M B; Cutting W A. (Department of Child Life and Health, University of Edinburgh, UK.. cd1c@clinmed.gla.ac.uk) . Clinical endocrinology, (2002 Sep) 57 (3) 391-9. Journal code: 0346653. ISSN: 0300-0664. Pub. country: England: United Kingdom. Language: English.

AB OBJECTIVE: Zinc may be a limiting factor in restricting catch-up growth in severely malnourished children. This study had two aims: (i) to examine the effect of different zinc supplementation regimens on IGF-I, its binding proteins and on markers of bone and collagen turnover in severely malnourished children and (ii) to investigate mechanisms underlying catch-up growth by examining changes in these markers during nutritional rehabilitation, their inter-relationships and their relationships with ponderal and linear growth. DESIGN: Double-blind randomized intervention study of three regimens of oral zinc supplementation. PATIENTS: One hundred and forty-one children, aged 6-36 months, mean (SD) age 15.4 (8.7) months, with day 1 weight-for-height SD score (whz) -2.6 (0.93) and height-for-age SD score (haz) -3.79 (1.29). MEASUREMENTS: Weight, height, lower leg length (by knemometry) at 15-day intervals from day 1 to day 90 of nutritional rehabilitation. Blood collection on days 1, 15 and 30 for IGF-I, IGFBP3, IGFBP2, bone alkaline phosphatase (BAP, osteoblast marker), procollagen type I C-terminal propeptide (PICP, marker of type I collagen synthesis), procollagen type III N-terminal propeptide (P3NP, marker of soft tissue type III collagen synthesis) and type I collagen telopeptide (ICTP, marker of type I collagen breakdown). RESULTS: There was early rapid weight gain during refeeding, whereas height gain occurred later in the trial. IGF-I, IGFBP3, BAP, PICP and P3NP were low or very low on day 1 compared to well-nourished age-matched European children, and all increased within 15 days ($P < 0.001$), with PICP and P3NP reaching levels higher than European norms. IGFBP2 and ICTP were high on day 1 and decreased over the same period ($P < 0.001$). There were no differences in anthropometric outcome or marker responses among zinc regimens. Day 1 whz was correlated with BAP, PICP and P3NP ($P < 0.001$). Changes in IGF-I, IGFBP3, BAP, PICP and P3NP over 30 days correlated with ponderal growth (whz change) over the same period (all $P < 0.01$). However, changes in these markers over 30 days correlated better with lower leg growth (all $P < 0.01$) and linear growth (haz change, $P < 0.01$ for PICP and P3NP, $P < 0.05$ for IGFBP3) measured over 90 compared with 30 days. At most time points, there were strong positive correlations (i) among IGF-I, IGFBP3, BAP, PICP and P3NP ($P < 0.01$) and (ii) between IGFBP2 and ICTP ($P < 0.01$). Conversely, IGFBP2 was negatively correlated with IGF-I, IGFBP3, BAP, PICP and P3NP at most time points ($P < 0.01$). CONCLUSIONS: We found no difference among zinc regimens in growth, IGF-I and its binding proteins or markers of bone and collagen turnover. Severe malnutrition was associated with low rates of bone and collagen synthesis and high rates of collagen degradation, and nutritional rehabilitation was associated with full or partial

'normalization' of the markers studied. Early weight gain and subsequent linear growth were associated with early increments in IGF-I, IGFBP3 and markers of bone and collagen formation. The study of these markers has provided additional insights into the mechanisms of the effects of malnutrition and refeeding on growth.

L20 ANSWER 36 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 24

2002:325671 Document No.: PREV200200325671. Island biogeography and metapopulation dynamics of Bahamian ants. Morrison, Lloyd W. [Reprint author]. Center for Medical, Agricultural and Veterinary Entomology, ARS, USDA, Gainesville, FL, 32604, USA. lmorrison@gainesville.usda.ufl.edu. Journal of Biogeography, (March, 2002) Vol. 29, No. 3, pp. 387-394. print. ISSN: 0305-0270. Language: English.

AB **Aim** I examined the island biogeography and metapopulation dynamics of ants inhabiting two archipelagos of small Bahamian islands. Of particular interest were measurement and comparison of turnover rates, examination of variation in relative population abundances, and the effect of a hurricane force disturbance on the ant fauna of these small islands. Location Archipelagos of small islands in the central Exumas and near the northeast coast of Andros, Bahamas. Methods Ants occupying small islands were surveyed using tuna and honey baits. I surveyed ninety-three islands in the Exumas in 1998 and fifty-eight islands at Andros in 1999, to compare with earlier surveys in both regions. The proportions of baits occupied were used as a measure of relative population abundance. A subset of seventeen small islands in the Exumas was surveyed in 1999 in the aftermath of Hurricane Floyd. Results Mean annual relative turnover rates were low: < 2.5% year⁻¹ on a per island basis, and < 7% year⁻¹ on a per species basis. Rates of immigration and extinction were similar, although immigrations exceeded extinctions in some comparisons. Relative population abundances of the two most common ant species varied inversely with each other. One species revealed a strong positive correlation with recent rainfall, whereas another varied strongly inversely. No extinctions of ants occurred on the seventeen small islands surveyed after Hurricane Floyd. Main conclusions Ants were found to be ubiquitous in this system, occurring on almost all vegetated islands. Ant populations were persistent over the period of study, and species rarely became extinct or colonized islands. The few instances of turnover observed appeared to occur randomly with respect to physical island characteristics. The correlational data suggest an interaction of interspecific competition and precipitation affect relative population abundances. Ants were found to be resistant to hurricane-force disturbances. In the short term (one decade), the ant fauna of these islands appears to be in a state of static equilibrium, although non-equilibrium dynamics may better characterize the system over longer time periods (several decades).

L20 ANSWER 37 OF 149 MEDLINE on STN DUPLICATE 25
2002626554. PubMed ID: 12383140. GPs' views on computerized drug interaction alerts: questionnaire survey. Magnus D; Rodgers S; Avery A J. (Division of General Practice, School of Community Health Sciences, The Medical School, Queens Medical Centre, Nottingham, UK.) Journal of clinical pharmacy and therapeutics, (2002 Oct) 27 (5) 377-82. Journal code: 8704308. ISSN: 0269-4727. Pub. country: England: United Kingdom. Language: English.

AB **BACKGROUND:** There is evidence that patients are being prescribed potentially hazardous drug-drug combinations in general practice despite the use of computerized drug interaction alert systems. One reason for this may be that general practitioners (GPs) are overriding these alerts without properly checking them. **AIMS:** (i) To assess GPs views on the relevance of information provided by alert systems; (ii) To determine the proportion of GPs that admit to frequently overriding interaction alerts without properly checking them and (iii) To explore factors that might be associated with a tendency to override alerts. **METHODS:** Questionnaire survey of GPs in four primary care trusts in the

Nottingham area of the UK. RESULTS: The response rate was 70% (236 of 336) and detailed analysis was conducted on the 220 respondents who had drug interaction alert systems on their practice computers. Of these, 22% (49 of 220) admitted to frequently or very frequently overriding drug interaction alerts without properly checking them. Potential reasons for overriding alerts included the perception that the alerts were frequently irrelevant. Nevertheless 90% (198 of 219) agreed that it should be more difficult to override alerts for potentially lethal drug combinations. Logistic regression analysis showed that users of the EMIS (Egton Medical Information Systems) computer system were much less likely to admit to overriding alerts without properly checking them than users of other computer systems. CONCLUSION: A minority of GPs admit to frequently overriding their drug interaction alert systems without properly checking them. The type of computer system used by GPs may make it more or less likely that they override alerts.

L20 ANSWER 38 OF 149 MEDLINE on STN DUPLICATE 26
 2002696776. PubMed ID: 12457741. The relationship between predisposing factors, premorbid function and symptom dimensions in psychosis: an integrated approach. Guerra Almudena; Fearon Paul; Sham Pak; Jones Peter; Lewis Shon; Mata Ignacio; Murray Robin. (Gerencia Torribera, Santa Coloma de Gramenet, Barcelona, Spain.) European psychiatry : journal of the Association of European Psychiatrists, (2002 Oct) 17 (6) 311-20. Journal code: 9111820. ISSN: 0924-9338. Pub. country: France. Language: English.

AB BACKGROUND: Increasing evidence suggests psychosis may be more meaningfully viewed in dimensional terms rather than as discrete categorical states and that specific symptom clusters may be identified. If so, particular risk factors and premorbid factors may predict these symptom clusters. AIMS: (i) To explore, using principal component analysis, whether specific factors for psychotic symptoms can be isolated. (ii) To establish the predictors of the different symptom factors using multiple regression techniques. METHOD: One hundred and eighty-nine inpatients with psychotic illness were recruited and information on family history, premorbid factors and current symptoms obtained from them and their mothers. RESULTS: Seven distinct symptom components were identified. Regression analysis failed to identify any developmental predictors of depression or mania. Delusions/hallucinations were predicted by a family history of schizophrenia and by poor school functioning in spite of normal premorbid IQ ($F = 6.5$; $P < 0.001$); negative symptoms by early onset of illness, developmental delay and a family history of psychosis ($F = 4.1$; $P = 0.04$). Interestingly disorganisation was predicted by the combination of family history of bipolar disorder and low premorbid IQ ($F = 4.9$; $P = 0.003$), and paranoia by obstetric complications (OCs) and poor school functioning ($F = 4.2$; $P = 0.01$). CONCLUSION: Delusions and hallucinations, negative symptoms and paranoia all appeared to have a developmental origin though they were associated with different childhood problems. On the other hand, neither mania nor depression was associated with childhood dysfunction. Our most striking finding was that disorganisation appeared to arise when a familial predisposition to mania was compounded by low premorbid IQ.

L20 ANSWER 39 OF 149 MEDLINE on STN
 2002288046. PubMed ID: 12028607. Contemporary measures of approach and avoidance goal orientations: similarities and differences. Smith Michaela; Duda Joan; Allen Justine; Hall Howard. (The University of Birmingham, Edgbaston, UK.) British journal of educational psychology, (2002 Jun) 72 (Pt 2) 155-90. Journal code: 0370636. ISSN: 0007-0998. Pub. country: England; United Kingdom. Language: English.

AB BACKGROUND: In response to a resurgence of interest in and demonstrated utility of the approach-avoidance goal distinction, a number of researchers (Elliot & Church, 1997; Midgley et al., 1998; Skaalvik, 1997) have developed instruments to assess individual differences in the tendency to adopt approach-avoidance goals. However, to date there has been no attempt to examine the psychometric properties or conceptual and

measurement overlap of these instruments. **AIMS:** (i) To determine whether three questionnaires designed to measure approach-avoidance goal orientations are assessing the same or different constructs, and (ii) to examine the psychometric properties of each of the approach-avoidance measures (i.e., internal consistency, convergent, discriminant, factorial, and construct validity). **SAMPLE:** Participants in this study were 475 undergraduate students (N = 228 males; N = 244 females; three missing information) enrolled at two large universities in the United Kingdom. **METHOD:** Participants completed a questionnaire which included measures of approach-avoidance goal orientations, effort regulation, test anxiety, perceived ability, and intrinsic motivation, extrinsic motivation, and amotivation. **RESULTS:** Results revealed a degree of convergence between the three instruments. Each of the instruments demonstrated good psychometric properties although construct validity results were inconsistent across the measures. **CONCLUSION:** There is a need for future research to clarify the operational definition and subsequent measurement of the performance avoidance construct, and in particular, to examine the role that effort, impression management, and anxiety/fear of failure play in its conceptualisation.

L20 ANSWER 40 OF 149 MEDLINE on STN

2002249019. PubMed ID: 11988143. [Role of aeroallergens in the etiopathogenesis of atopic dermatitis]. Importancia de los aeroalergenosen la etiopatogenia de la dermatitis atopica. Escarrer Jaume M; Munoz-Lopez F. (Servicio de Inmunologia y Alergia. Unidad Integrada Hospital Clinic-Sant Joan de Deu. Facultad de Medicina. Barcelona. Spain.) Allergologia et immunopathologia, (2002 May-Jun) 30 (3) 126-34. Journal code: 0370073. ISSN: 0301-0546. Pub. country: Spain. Language: Spanish.

AB Atopic dermatitis is a chronic relapsing inflammatory skin disease. It is most frequent in childhood and its clinical manifestations vary with age. The etiopathogenic mechanisms that explain this process are still poorly understood; several studies performed in adults speculate on the possible role of aeroallergens through direct contact with the skin but, because the etiology of this disease varies with age, studies in children of different ages are required. **Aims:** (i) To determine whether children with atopic dermatitis are sensitized to inhalant allergens. (ii) To determine whether these inhalant allergens cause dermatitis or whether they provoke allergic respiratory disease (asthma, rhinitis) concomitant with atopic dermatitis. (iii) To evaluate whether sensitization to a particular allergen takes place at any age or whether there are differences according to age. **Material and methods:** This study was performed in the following groups: (i) 64 children with atopic dermatitis, divided into two subgroups, one consisting of 37 children who also presented allergic respiratory disease (asthma, rhinitis) (AR) and another subgroup of 27 patients who presented atopic dermatitis only. (ii) Control group: eight children who presented AR only, to determine whether this group reacted to patch testing with inhalant allergens. (iii) Control group: seven healthy children to rule out non-specific positive tests in the non-atopic population. All groups were divided by age according to the phases of atopic dermatitis: early childhood phase (< 2 years): 21, childhood phase (2-10 years): 37, adolescent phase (> 10 years): 21. In all children total serum IgE determination (RIA), allergen-specific IgE determination (RAST), prick- and patch test were performed. In the three tests the same allergens were used, consisting of the usual components of standardized inhalant and food allergens. When the results of patch testing were positive, biopsy and histopathological analysis were performed and monoclonal antibodies were used to determine reproducibility of the eczematous lesion. **Results:** Sensitization was found to differ among patients with atopic dermatitis according to whether they presented respiratory symptoms and according to age with a clear predominance of food sensitization in the group aged less than 2 years. In the group aged 2-10 years, mixed sensitization predominated, mainly because of simultaneous respiratory involvement, but it is highly probable that inhalant allergens participate in the etiopathogenesis of atopic dermatitis. In children aged more than 10 years sensitization to inhalant

allergens predominated as most presented respiratory symptoms. Patch testing was positive in 34.3 % of patients with atopic dermatitis and approximately half were positive to dust mites. The patch test is of great diagnostic value in atopic dermatitis and none of the tests were positive in the control group. All the biopsies of patch tests with inhalant allergens reproduced the lesions typical of eczema, demonstrating their involvement in the etiopathogenesis of dermatitis.

L20 ANSWER 41 OF 149 MEDLINE on STN DUPLICATE 27
2002476042. PubMed ID: 12145664. Role of cytokines in the assessment of the severity of chronic hepatitis C and the prediction of response to therapy. Neuman Manuela G; Benhamou Jean-Pierre; Ibrahim Asma; Malkiewicz Izabella; Spircu Tiberius; Martinot-Peignoux Michelle; Shear Neil H; Katz Gady G; Akremi Raoudha; Bourliere Marc; Marcellin Patrick. (Division of Clinical Pharmacology E-240, Sunnybrook and Women's College Health Sciences Centre, University of Toronto, 2075 Bayview Avenue, Toronto, Ontario, M4N 3M5, Canada.) Romanian journal of gastroenterology, (2002 Jun) 11 (2) 97-103. Journal code: 9315667. ISSN: 1221-4167. Pub. country: Romania. Language: English.

AB **AIMS:** (i) To characterize serum levels of pro/anti-inflammatory cytokines in non-cirrhotics with hepatitis C; (ii) to correlate levels of these cytokines with degree of disease at baseline; and (iii) to characterize the immuno-modulatory effects of therapy with response. **METHODS:** We studied 103 patients that were part of randomized, controlled, clinical trials. Serum cytokines were measured using enzyme-linked immunosorbent assay. **RESULTS:** Using standard therapy in the presence and absence of ribavirin, the sustained responders had lower baseline tumor necrosis alpha (TNF-alpha) levels as compared to relapsed responders and non-responders. In patients receiving pegylated therapy, the degree of inflammation as determined by histology was paralleled by high TNF-alpha levels at baseline. In pegylated combination therapy with high dose ribavirin, lower levels of TNF-alpha, transforming growth factor beta (TGF-beta) and fibrosis scores were seen when comparing baseline with follow up. In sustained responders, regardless of therapy, the histological activity scores were lower at follow up as compared to baseline. **CONCLUSIONS:** Pegylated combination therapy reduces and sustains TNF-alpha levels and liver inflammation as shown by the histological activity index. In addition, it is able to reduce fibrosis as judged both by TGF-beta levels and fibrosis scores as compared to standard therapy.

L20 ANSWER 42 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 28

2003:15561 Document No.: PREV200300015561. Are ecology and evolutionary biology "soft" sciences?. Pigliucci, Massimo [Reprint Author]. Departments of Botany, Ecology and Evolutionary Biology, and Philosophy, University of Tennessee, Knoxville, TN, 37996-1100, USA. pigliucci@utk.edu. Annales Zoologici Fennici, (14 June 2002) Vol. 39, No. 2, pp. 87-98. print. CODEN: AZOFAO. ISSN: 0003-455X. Language: English.

AB Research in ecology and evolutionary biology (evo-eco) often tries to emulate the "hard" sciences such as physics and chemistry, but to many of its practitioners feels more like the "soft" sciences of psychology and sociology. I argue that this schizophrenic attitude is the result of lack of appreciation of the full consequences of the peculiarity of the evo-eco sciences as lying in between a-historical disciplines such as physics and completely historical ones as like paleontology. Furthermore, evo-eco researchers have gotten stuck on mathematically appealing but philosophically simplistic concepts such as null hypotheses and p-values defined according to the frequentist approach in statistics, with the consequence of having been unable to fully embrace the complexity and subtlety of the problems with which ecologists and evolutionary biologists deal with. I review and discuss some literature in ecology, philosophy of science and psychology to show that a more critical methodological attitude can be liberating for the evo-eco scientist and can lead to a more fecund and enjoyable practice of ecology and evolutionary biology. With this aim, I briefly cover concepts such as the

method of multiple hypotheses, Bayesian analysis, and strong inference.

L20 ANSWER 43 OF 149 MEDLINE on STN DUPLICATE 29
2002331167. PubMed ID: 12073758. HIV prevention in prisons. Do international guidelines matter?. Bollini Paola; Laporte Jean-Dominique; Harding Timothy W. (Institute of Legal Medicine, Humanitarian Action Programme, University of Geneva, Geneva, Switzerland.) European journal of public health, (2002 Jun) 12 (2) 83-9. Journal code: 9204966. ISSN: 1101-1262. Pub. country: England; United Kingdom. Language: English.

AB BACKGROUND: In spite of the availability of international guidelines, HIV prevention and management of care in prison is still unsatisfactory in many countries. Factors affecting the quality of HIV prevention policies in prison have not yet been elucidated. The present study had two **aims**: i) to assess national HIV prevention policies in prison in a selected group of countries; and ii) to determine which factors influenced such policies at the country level. METHODS: HIV prevention policies in prison were reviewed comparatively in Moldova, Hungary, Nizhnii Novgorod region of the Russian Federation, Switzerland and Italy. The review of HIV prevention policies in prison was conducted through interviews with government officials, non-governmental organizations, professionals involved in this field, and visits to selected prisons. Information on the health of prisoners, including tuberculosis, sexually transmitted diseases, and other infectious diseases has also been collected. RESULTS: The results indicated that all countries had adopted a policy, irrespective of the burden of HIV infection in the prison system. The content of the policy mirrored the philosophy and strategies of HIV prevention and care in the community. The 1993 WHO Guidelipes were fully implemented only in one country out of four (Switzerland), and partially in two (Italy and Hungary). CONCLUSIONS: A greater effort aimed at dissemination of information, provision of technical know-how and material resources could be the answer to at least part of the problems identified. In addition, greater national and international efforts are needed to stimulate the debate and build consensus on harm reduction activities in prison.

L20 ANSWER 44 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
2002:217093 The Genuine Article (R) Number: 527LV. Boltzmann's time bomb. Price H (Reprint). Univ Edinburgh, Dept Philosophy, David Hume Tower, Edinburgh EH8 9JX, Midlothian, Scotland (Reprint); Univ Edinburgh, Dept Philosophy, Edinburgh EH8 9JX, Midlothian, Scotland; Univ Sydney, Dept Philosophy, Sydney, NSW 2006, Australia. BRITISH JOURNAL FOR THE PHILOSOPHY OF SCIENCE (MAR 2002) Vol. 53, No. 1, pp. 83-119. Publisher: OXFORD UNIV PRESS. GREAT CLARENDON ST, OXFORD OX2 6DP, ENGLAND. ISSN: 0007-0882. Pub. country: Scotland; Australia. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Since the late nineteenth century, physics has been puzzled by the time-asymmetry of thermodynamic phenomena in the light of the apparent T-symmetry of the underlying laws of mechanics. However, a compelling solution to this puzzle has proved elusive. In part, I argue, this can be attributed to a failure to distinguish two conceptions of the problem. According to one, the main focus of our attention is a time-asymmetric lawlike generalisation. According to the other, it is a particular fact about the early universe. This paper **aims** (i) to distinguish these two different conceptions of the time-asymmetric explanandum in thermodynamics; (ii) to argue in favour of the latter; and (iii) to show that whichever we choose, our rational expectations about the thermodynamic behaviour of the future must depend on what we know about the past: contrary to the common view, statistical arguments alone do not give us good reason to expect that entropy will always continue to increase.

L20 ANSWER 45 OF 149 MEDLINE on STN DUPLICATE 30
2002693693. PubMed ID: 12454350. What helps people with bipolar affective disorder succeed in employment: a grounded theory approach. Tse Samson; Yeats Mike. (School of Occupational Therapy, Otago Polytechnic, Dunedin,

New Zealand.. samsont@tekotago.ac.nz) . Work (Reading, Mass.), (2002) 19
(1) 47-62. Journal code: 9204382. ISSN: 1051-9815. Pub. country:
Netherlands. Language: English.

AB The present study used a qualitative research design to unfold those contextual factors which influence vocational outcomes amongst people with bipolar disorder (BD). The data for this qualitative study was collated using a grounded theory approach because of its particular relevance to the study's **aims** i.e., to propose a theory grounded in the data that provided an account of the vocational integration process people with BD go through. The emerging theory consists of two over-arching principles that determine an individual's readiness to join the workforce: i) recovery from an acute phase of BD and ii) goodness of fit between the individual, support, job and wider contextual components. The emerging theory is in general agreement with those issues discussed in the literature. The present study also highlights the importance of maintaining a sense of hope and how self-determination may help individuals achieve their vocational goals. The credibility of these findings was strengthened by the method of triangulation of data interpretation and sources.

L20 ANSWER 46 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE
31

2001:469555 The Genuine Article (R) Number: 438CX. A computational study of neutral and charged pyrroles. Functionalization of 1-phenylpyrrole and 2,5-dimethyl-1-phenylpyrrole with electron donating methylsulfanyl groups. Aleman C (Reprint); Domingo V M; Julia L. Univ Politecn Catalunya, Dept Engn Quim, ETS Engn Ind Barcelona, Diagonal 647, E-08028 Barcelona, Spain (Reprint); Univ Politecn Catalunya, Dept Engn Quim, ETS Engn Ind Barcelona, E-08028 Barcelona, Spain; CSIC, Dept Quim Organ Biol, Inst Invest Quim & Ambientals Barcelona, ES-08034 Barcelona, Spain. JOURNAL OF PHYSICAL CHEMISTRY A (31 MAY 2001) Vol. 105, No. 21, pp. 5266-5271. Publisher: AMER CHEMICAL SOC. 1155 16TH ST, NW, WASHINGTON, DC 20036 USA. ISSN: 1089-5639. Pub. country: Spain. Language: English.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We present a detailed computational study of the geometric structure and torsional potential of 1-phenylpyrrole, 2,5-dimethyl-1-phenylpyrrole, 3,4-bis(methylsulfanyl)-1-phenylpyrrole, and 3,4-bis(methylsulfanyl)-2,5-dimethyl-1-phenylpyrrole. Both the neutral molecule and the corresponding radical cation are investigated for each compound. Calculations of the neutral species and radical cations are performed at the RHF/6-31G(d) and UHF/6-31G(d) levels, respectively. Our study has two major **aims**:
(i) to assess and evaluate the effects of the bulky methyl substituents at 2,5 positions and (ii) to investigate the effects exerted by the electron-donating methylsulfanyl groups. The analysis of the results has revealed that both the methyl and methylsulfanyl substituents induce unusual structural properties, particularly in the radical cations.

L20 ANSWER 47 OF 149 MEDLINE on STN DUPLICATE 32

2001503484. PubMed ID: 11552918. Outcomes of Helicobacter pylori treatment in community practice and impact of therapeutic effectiveness information on physician behaviour. Fennerty M B; Magaret N; Dalros L; Faigel D; Lieberman D; Shaw M. (Division of Gastroenterology, Department of Medicine, Oregon Health Sciences University, Portland, Oregon 97201-3098, USA.. fennerty@ohsu.edu) . Alimentary pharmacology & therapeutics, (2001 Sep) 15 (9) 1453-8. Journal code: 8707234. ISSN: 0269-2813. Pub. country: England: United Kingdom. Language: English.

AB BACKGROUND: The effect of knowledge of Helicobacter pylori eradication rates on physician choice of treatment regimen is unknown. As practice variation results in differences in outcome, it is important to determine whether physician behaviour can be altered by such knowledge.
AIMS: (i) To determine whether dissemination of practice variation and effectiveness data regarding H. pylori changes subsequent prescribing behaviour and (ii) whether this change results in an improvement in the effectiveness of therapy. **METHODS:** Community gastroenterologists in the Portland metropolitan area enrolled patients

being treated for *H. pylori*. The regimen used, diagnostic method, indication and success in eradication was measured. Patient-centred factors were also measured, including symptoms, interest in post-treatment diagnostic testing and willingness to pay. RESULTS: Significantly more physicians participating in both studies used proton pump inhibitor-triple therapy based regimens in this trial (46% vs. 85%, $P=0.01$), although the overall difference between the two trials was not significant (62% vs. 83%, $P=0.11$). There was no change in overall eradication rates by per protocol analysis between trials (84% vs. 85%, $P=0.78$), but a significant decrease in effectiveness by intention-to-treat analysis observed in this study (80% vs. 71%, $P=0.03$). Significantly more patients were treated for reasons other than peptic ulcer disease in this study ($P=0.0003$). CONCLUSIONS: The overall effectiveness of *H. pylori* therapy in practice remains good. There has been a shift in the choice of treatment regimen and indication for therapy between the time periods of the two studies. Dissemination of treatment data appears to effect prescribing behaviour, but whether it has a beneficial effect on treatment outcome remains unproven.

L20 ANSWER 48 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 33

2001:901122 The Genuine Article (R) Number: 491AE. A stress singularity approach to failure initiation in a bonded joint with varying bondline thickness. Gleich D M (Reprint); Van Tooren M J L; Beukers A. Delft Univ Technol, Fac Aerosp Engn, Kluyverweg 3, NL-2629 HS Delft, Netherlands (Reprint); Delft Univ Technol, Fac Aerosp Engn, NL-2629 HS Delft, Netherlands. JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY (1 NOV 2001) Vol. 15, No. 10, pp. 1247-1259. Publisher: VSP BV. PO BOX 346, 3700 AH ZEIST, NETHERLANDS. ISSN: 0169-4243. Pub. country: Netherlands. Language: English

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The stress singularity at the theoretical point of maximum stress in an uncracked single lap joint is analysed by a finite element method. By treating the interface corner of a bonded joint (between adherend and adhesive) as a perfectly bonded wedge and using a fracture mechanics method, considerable advantages over other continuum mechanics approaches for investigating the bondline thickness effect on joint strength are shown. This study has essentially two aims: (i) determination of the strength of the singularity by finite element analysis and comparison with the analytical prediction of Bogy for varying bondline thickness; and (ii) determination of stress intensity factors for varying bondline thickness. Good agreement is shown between the numerically-calculated strength of the singularity with the analytical value obtained from Bogy. The calculated stress intensity, after an initial decrease in the low bondline thickness range, is found to increase with increasing bondline thickness. This agrees well with the trends predicted by experiments.

L20 ANSWER 49 OF 149 MEDLINE on STN DUPLICATE 34
2001521812. PubMed ID: 11567970. Experimental flow studies in glaucoma drainage device development. Anonymous. (Wound Healing Research Unit, Department of Pathology, Institute of Ophthalmology, London, UK. (AGFID project team).) British journal of ophthalmology, (2001 Oct) 85 (10) 1231-6. Journal code: 0421041. ISSN: 0007-1161. Pub. country: England: United Kingdom. Language: English.

AB AIMS: (I) To examine whether small holes produced by 248 nm excimer laser ablation in a polymer substrate could consistently produce a pressure drop in the desired target range (5-15 mm Hg) at physiological aqueous flow rates for use as an internal flow restrictor in a glaucoma drainage device, and (ii) to investigate whether external leakage could be reduced in comparison with conventional tube and plate glaucoma drainage devices by redesigning the exterior cross sectional shape of the portion contained within the sclerocorneal tunnel. METHODS: Single holes with target diameters of 10 microm, 15 microm, 20 microm, and 25 microm were drilled using a 248 nm excimer laser in sample discs ($n=6$)

at each diameter) punched from a 75 microm thick polyimide sheet. Sample discs were tested in a flow rig designed to measure the pressure drop across the discs. Using filtered, degassed water at a flow rate of 1.4 microl/min repeated flow measurements were taken (n=6) for each disc. After flow testing, all discs were imaged using a scanning electron microscope and the dimensions of each hole were derived using image analysis software. In the external leakage study, corneoscleral buttons (n=13) were prepared from cadaver pig eyes and mounted on an artificial anterior chamber infused with Tyrode solution. After the pressure had stabilised, standard occluded silicone tube implants were inserted through 23 gauge needle stab incisions at the limbus. These were compared against prototype PMMA implants with a novel shape profile inserted through 1.15 mm width microvitrectomy (MVR) stab incisions at the limbus. The infusion rate was maintained and a second pressure measurement was taken when the pressure had stabilised. The difference between the first and second pressure measurement was then compared, as an index of external leakage. RESULTS: Ablated tubes were found to have a near perfect circular outline on both the entry and exit side. The observed pressure drops across the ablated sample discs at each target diameter were as follows: 10 microm, mean 25.66 (SD 4.9) mm Hg; 15 microm, 6.7 (1.15); 20 microm, 1.66 (1.07); and 25 microm, <0.1 mm Hg. A strong correlation was observed between observed pressure drops and those predicted by Poiseuille's formula ($R^2 = 0.996$). Target ablations of 15 microm diameter produced tubes that consistently achieved a pressure drop within the desired range (5-15 mm Hg). In the external leakage study, preinsertion pressures (mm Hg; mean (SD)) were 19.00 (4.3) (conventional method) and 20.00 (3.9) (new technique with PMMA prototypes). Post-insertion pressures were significantly reduced (10.40 (7.7); $p < 0.01$) for the conventional technique and were essentially unchanged for the new technique (18.80 (4.9); $p > 0.1$). CONCLUSIONS: It was shown that it is possible, in principle, to control the dimensions of a manufactured tubular lumen in a glaucoma drainage device accurately enough to provide consistent protection from hypotony in the early period after glaucoma filtration surgery. By redesigning the external profile of glaucoma drainage device and incision technique, it was also shown that it is possible to eliminate uncontrolled external leakage.

- L20 ANSWER 50 OF 149 MEDLINE on STN DUPLICATE 35
 2002009143. PubMed ID: 11328259. Colonic motility in chronic ulcerative proctosigmoiditis and the effects of nicotine on colonic motility in patients and healthy subjects. Coulie B; Camilleri M; Bharucha A E; Sandborn W J; Burton D. (Gastroenterology Research Unit, Mayo Clinic, Rochester, MN 55905, USA.) Alimentary pharmacology & therapeutics, (2001 May) 15 (5) 653-63. Journal code: 8707234. ISSN: 0269-2813. Pub. country: England: United Kingdom. Language: English.
- AB BACKGROUND: Nicotine decreases diarrhoea and pain in ulcerative colitis without reducing inflammation. AIMS: (i) To evaluate the effect of ulcerative proctosigmoiditis on motor functions of an uninfamed segment of descending colon; and (ii) to assess nicotine's effects on colonic motor functions in patients and healthy subjects. METHODS: In healthy subjects (n=30) and patients with ulcerative colitis (13; 11 active, two quiescent colitis), we studied the effects of intravenous nicotine on colonic transit of solid residue by scintigraphy (healthy subjects) and on colonic motility in healthy subjects and 11 patients. RESULTS: In ulcerative colitis, fasting colonic motility was increased, whereas motor response to a meal was significantly reduced; compliance was unchanged. In healthy subjects, high-dose nicotine induced transient high amplitude propagated contractions and relaxation of the descending colon followed by decreased phasic contractions. This dose also accelerated colonic transit. Low-dose nicotine (mimicking a transdermal nicotine patch) reduced colonic compliance in healthy subjects, but did not affect motor function in ulcerative colitis. CONCLUSIONS: Ulcerative proctosigmoiditis increases fasting colonic motility and reduces tone response to a meal in the descending colon without affecting colonic compliance, suggesting changes in physiological

responses but not intrinsic wall properties. Nicotine has dose-dependent effects on colonic motor activity in healthy subjects.

- L20 ANSWER 51 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN
2001:646663 Document No. 135:197611 Coal - prepared for the future. Tonjes, Bernd (Vorstandsvorsitzender der Deutschen Steinkohle AG, Herne, Germany). Glueckauf, 137(7/8), 403-407 (German) 2001. CODEN: GLUEAJ. ISSN: 0340-7896. Publisher: Verlag Glueckauf GmbH.
- AB A discussion and review without refs. At the Brussels Energy Round Table (B.E.R.T.) on 16 May 2001 the author exhorted the maintenance of a balanced energy mix, including the indigenous energy sources. Only in this way can all energy policy aims - i.e. safeguarding of supply, profitability and environmental friendliness - be taken into account in the same way. A modernization and technol. offensive is required to meet the increasing requirements on the profitability and environmental friendliness of energy generation and utilization. Technol. is the key factor to enable the higher demand of an expanding world population to be met. Hence from the coal point of view the important task is to improve the extraction and use of coal economically and ecol. by increasing the efficiency in the entire coal chain and safeguarding the technol. site. With its competence the RAG will make a contribution to long-term responsible handling of coal.
- L20 ANSWER 52 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
2002:616215 The Genuine Article (R) Number: 573RE. The Archive of the "Studio di Fonologia di Milano della RAI". Novati M. RAI Radiotelevis Italiana, Milan, Italy. JOURNAL OF NEW MUSIC RESEARCH (30 MAY 2001) Vol. 30, No. 4, pp. 395-402. Publisher: SWETS ZEITLINGER PUBLISHERS. P O BOX 825, 2160 SZ LISSE, NETHERLANDS. ISSN: 0929-8215. Pub. country: Italy. Language: English.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
- AB The Archives of Studio di Fonologia di Milano della RAI contain the electronic music tapes of the most important Italian composers of the XX century. The restoration and maintenance of this patrimony is important as well as its diffusion. To this aim, I am carrying out a project in RAI since 1996, consisting in remastering all the tapes in digital format, cataloguing and publishing as soon as possible the most important ones. However, the restoration of this material is crucial before irrevocable damage takes place. To this purpose, RAI is already collaborating with some Italian Universities.
- L20 ANSWER 53 OF 149 MEDLINE on STN DUPLICATE 36
2001:196410. PubMed ID: 11222342. A comparison of cyst age and assay method of the efficacy of contact lens disinfectants against Acanthamoeba. Kilvington S; Anger C. (Department of Microbiology and Immunology, Medical Sciences Building, University of Leicester, Leicester LE1 9HN, UK.. sk46@leicester.ac.uk) . British journal of ophthalmology, (2001 Mar) 85 (3) 336-40. Journal code: 0421041. ISSN: 0007-1161. Pub. country: England: United Kingdom. Language: English.
- AB **AIMS:** (i) To determine effect of Acanthamoeba cyst age, method of production, and (ii) to assay technique on the efficacy of multipurpose solutions (MPS) and hydrogen peroxide based contact lens disinfectants. (iii) To establish if MPS can remove mature cysts from contact lenses according to the ISO/DIS 14729 regimen test for microbe removal. **METHODS:** Immature and mature cysts of A polyphaga were tested against the MPS Opti-Free express and the hydrogen peroxide based solutions Oxysept 1Step and Oxysept 1 using two assay methods. Simulated patient regimen testing was performed with the Opti-Free express and Complete using mature cysts inoculated on to group I or group IV lenses. **RESULTS:** Immature cysts were sensitive to disinfection by all solutions. No killing was observed with mature cysts with Opti-Free express, while immature cysts yielded a 1-2 log reduction in viability. Oxysept 1Step gave a 1.1 (SD 0.3) log reduction in mature cysts after 6 hours. Oxysept 1 gave a 2.4 (0.3) log reduction in mature cysts after 4 hours and a 3.8 (0.5) log reduction after 6 hours. Patient regimen testing using

Opti-Free express and Complete resulted in no recovery of viable mature cysts from the contact lenses or from the soaking solutions. CONCLUSION: Cyst age but not method of production used in this study influences the efficacy of contact lens disinfectants against Acanthamoeba. MPS are effective in removing cysts from contact lens surfaces and may have a role in the prevention of acanthamoeba keratitis.

L20 ANSWER 54 OF 149 MEDLINE on STN DUPLICATE 37
2001330451. PubMed ID: 11350862. Respective contributions of alpha-adrenergic and non-adrenergic mechanisms in the hypotensive effect of imidazoline-like drugs. Bruban V; Feldman J; Grenay H; Dontenwill M; Schann S; Jarry C; Payard M; Boutin J; Scalbert E; Pfeiffer B; Renard P; Vanhoutte P; Bousquet P. (Laboratoire de Neurobiologie et Pharmacologie Cardiovasculaire, Faculte de Medecine, Universite Louis Pasteur, 11 rue Humann, 67000 Strasbourg, France.) British journal of pharmacology, (2001 May) 133 (2) 261-6. Journal code: 7502536. ISSN: 0007-1188. Pub. country: England: United Kingdom. Language: English.

AB The hypotensive effect of imidazoline-like drugs, such as clonidine, was first attributed to the exclusive stimulation of central alpha2-adrenoceptors (alpha2ARs). However, a body of evidence suggests that non-adrenergic mechanisms may also account for this hypotension. This work **aims** (i) to check whether imidazoline-like drugs with no alpha2-adrenergic agonist activity may alter blood pressure (BP) and (ii) to seek a possible interaction between such a drug and an alpha2ARs agonist alpha-methylnoradrenaline (alpha-MNA). We selected S23515 and S23757, two imidazoline-like drugs with negligible affinities and activities at alpha2ARs but with high affinities for non-adrenergic imidazoline binding sites (IBS). S23515 decreased BP dose-dependently (-27+/-5% maximal effect) when administered intracisternally (i.c.) to anaesthetized rabbits. The hypotension induced by S23515 (100 microg kg(-1) i.c.) was prevented by S23757 (1 mg kg(-1) i.c.) and efaroxan (10 microg kg(-1) i.c.), while these compounds, devoid of haemodynamic action by themselves, did not alter the hypotensive effect of alpha-MNA (3 and 30 microg kg(-1) i.c.). Moreover, the alpha2ARs antagonist rauwolscine (3 microg kg(-1) i.c.) did not prevent the effect of S23515. Finally, whilst 3 microg kg(-1) of S23515 or 0.5 microg kg(-1) of alpha-MNA had weak hypotensive effects, the sequential i.c. administration of these two drugs induced a marked hypotension (-23+/-2%). These results indicate that an imidazoline-like drug with no alpha2-adrenergic properties lowers BP and interacts synergistically with an alpha(ARs) agonist.

L20 ANSWER 55 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN
2003:95743 Document No. 138:324918 Technological evolution of magnesia-carbon bricks for steel ladles in Argentina. Figueiredo, A., Jr.; Bellandi, N.; Vanola, A.; Zamboni, L. (Magnesita, Brazil). Proceedings of [the] Unified International Technical Conference on Refractories, Biennial Worldwide Congress, 7th, Cancun, Mexico, Nov. 4-7, 2001, Volume 1, 157-166. American Ceramic Society: Westerville, Ohio. (English) 2001. CODEN: 69DNT8.

AB A review of developments in magnesia-carbon refractory bricks for steel ladles to meet the developments in steelmaking in Argentina over the last five years. In spite of being a small market, the Argentine steel industry is highly specialized and technol. competitive. The technol. evolution of magnesia-carbon bricks was carried out with two main **aims**, i.e. increasing the performance and reducing specific costs. In order to reach these objectives, attention was not only focussed on detecting the main wear mechanism of bricks in each steel mill, but also on brick design (chemical, phys. and mech. properties and shape), wear of bricks, manufacturing process, and operating safety. As a result, the steel ladles have enabled international performance and an outstanding reduction of the cost per ton of steel since 1996.

L20 ANSWER 56 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN
2001:123033 Document No. 134:375240 Nitrido bridges between transition metals and main group elements illustrated by the series [M]Nna to [M]NCl.

Dehnicke, Kurt (Fachbereich Chemie, Philipps-Universität Marburg, Marburg, 35032, Germany). Chemical Society Reviews, 30(2), 125-135 (English) 2001. CODEN: CSRVBR. ISSN: 0306-0012. Publisher: Royal Society of Chemistry.

- AB A review with 70 refs. A survey is given of the structures and bonding modes of nitrido bridges between transition metals with MN multiple bonds and main group elements. Illustrated by the period row Na (Group IA) to Cl (Group VIIA) (or a homolog) along with variable transition metals M, characteristic examples are compiled, their principles of synthesis are presented and the step-by-step alterations of the bonding conditions that occur in this period are discussed from structural parameters. These bonding conditions can be divided into three groups: (1) Electrostatic bond between nitrido ligand and main group element (IA, IIA), (2) Covalent single bond (IIIA, IVA), (3) Multiple bonds between both neighboring elements (VA-VIIA). One example each is designed to illustrate this aim: (i) $\text{Na}_3[\text{MoN}_3]$; (ii) $[\text{Mg}(\text{THF})_4\{\text{NMoCl}_4(\text{THF})\}_2]$; (iii) $[\text{Re.tplbond.N-GaCl}_3(\text{PMe}_2\text{Ph})(\text{Et}_2\text{dtc})_2]$ (no example with Al is known up to now); (iv) $\text{Cl}_3\text{V.tplbond.N-SiMe}_3$; (v) $\text{O}_3\text{Re:N:PPh}_3$; (vi) $[\text{Cl}_5\text{W:N:SCl}]^-$; (vii) $[\text{F}_5\text{W:NCl}]^-$.

L20 ANSWER 57 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 38

- 2001:461040 Document No.: PREV200100461040. Yield trends of temperate cereals in high latitude countries from 1940 to 1998. Slafer, Gustavo A. [Reprint author]; Peltonen-Sainio, Pirjo. Departamento de Produccion Vegetal and IFEVA (Agricultural Plant Physiology and Ecology Research Institute), Facultad de Agronomia, Universidad de Buenos Aires, Av. San Martin 4453, 1417, Buenos Aires, Argentina. slafer@ifeva.edu.ar; pirjo.peltonen-sainio@mtt.fi. Agricultural and Food Science in Finland, (2001) Vol. 10, No. 2, pp. 121-131. print. ISSN: 1239-0992. Language: English.

- AB Wheat is the only temperate cereal for which yield trends have been exhaustively analysed on both global and national bases. This paper aims (i) to compare global yield trends of wheat, barley, oat and rye for the last five decades, (ii) to analyse their yield trends in Canada, Denmark, Norway, Sweden and Finland, the northernmost limits for extensive agriculture, and (iii) using case studies, to assess the relative contribution to yield gains made by cereal breeding. Average global yield data from FAO were regressed against years using linear or bilinear regressions. Yield gains in absolute and relative terms were calculated for comparison among countries and cereals. Data from the literature were used to assess the estimated contributions made by breeding to yield gains. Global yield trends were not standard throughout the 1950-1998 period: rye exhibited a constant yield gain (c. 28 kg ha⁻¹ y⁻¹), while barley and oat showed marked increases until around 1970 (c. 38 and 32 kg ha⁻¹ y⁻¹, respectively) but quite modest increases (c. 19 and 5 kg ha⁻¹ y⁻¹, respectively) over the last 30 years. Wheat also showed a bilinear trend with only limited yield gains until the 1960s, followed by a more than 3-fold increase in rate of yield gain from then on (16 and 40 kg ha⁻¹ y⁻¹, respectively). However, during the 1990s wheat yield gains have been less than previously. Hence, global yields of barley, oat and wheat have increased very slowly lately. Trends for each combination of cereals and countries indicated consistently higher yields during the 1990s than at mid-century. In general, wheat yield tended to increase at a faster rate than yield of the other cereals. There was a trend in the last decade of low rates of yield increase compared with those of previous decades. This was clear for oat and barley, and a similar trend is emerging for wheat. This suggests that genetic and/or management improvements have had less effect in recent times. Furthermore, we found preliminary evidence to suggest that with the exception of wheat in Canada, genetic contributions in northern areas were smaller than those reported for wheat and barley at lower latitudes. Therefore, alternative approaches must be sought for future breeding work under these high latitude conditions.

2001533920. PubMed ID: 11580214. The Second International Standard for somatropin (recombinant DNA-derived human growth hormone): preparation and calibration in an international collaborative study. Bristow A F; Jespersen A M. (Division of Endocrinology, National Institute for Biological Standards and Control, Blanche Lane, South Mimms, Potters Bar, Herts, EN6 3QG, UK.. abristow@nibsc.ac.uk) . Biologicals : journal of the International Association of Biological Standardization, (2001 Jun) 29 (2) 97-106. Journal code: 9004494. ISSN: 1045-1056. Pub. country: England: United Kingdom. Language: English.

AB A preparation of somatropin (recombinant DNA-derived human growth hormone) was prepared as lyophilised ampoules according to WHO procedures for international biological standards. The candidate preparation (98/574) was evaluated in an international collaborative study (16 laboratories, nine countries), with the following aims: (i) to determine the suitability of the preparation to serve as the International Standard for somatropin by studying its performance in the current range of physico-chemical and biological assay methods employed for somatropin; (ii) to assign a content in terms of the existing (first) International Standard for somatropin, using the currently recognised assay procedure (Size Exclusion High Performance Liquid Chromatography, SE HPLC); (iii) to confirm the specific biological activity of the candidate preparation; (iv) to confirm the stability of the candidate preparation. On the basis of the collaborative study WHO agreed that: the preparation in ampoules coded 98/574 is suitable to serve as the next WHO International Standard for somatropin; the preparation in ampoules coded 98/574 should be established as the second International Standard for somatropin, with a defined ampoule content of 1.95 mg total somatropin plus somatropin-related proteins per ampoule; the specific activity of the preparation should be defined as 3.0 IU/mg somatropin. Copyright 2001 The International Association for Biologicals.

L20 ANSWER 59 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
2001:551927 The Genuine Article (R) Number: 447XT. Contextual control over the expression of fear in rats conditioned under a benzodiazepine. Harris J A; Westbrook R F (Reprint). Univ New S Wales, Sch Psychol, Sydney, NSW 2052, Australia (Reprint). PSYCHOPHARMACOLOGY (JUN 2001) Vol. 156, No. 1, pp. 92-97. Publisher: SPRINGER-VERLAG. 175 FIFTH AVE, NEW YORK, NY 10010 USA. ISSN: 0033-3158. Pub. country: Australia. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Rationale: Benzodiazepines disrupt fear conditioning, but this disruption is context-specific: if rats have been conditioned under a benzodiazepine, their fear is recovered if they are tested in a different context. The present experiments investigated how the conditioning context controls fear in rats conditioned under a benzodiazepine. Objectives: The experiments had three aims: (1) to replicate the finding that fear is recovered when rats are tested in a different context, (2) to test whether the conditioning context reduces fear generally or only for the specific stimulus conditioned in that context and (3) to test whether latent inhibition of the conditioning context reduces its control over fear. Methods: Rats were injected with the benzodiazepine midazolam (1.25 mg/kg) or saline and exposed to a conditioned stimulus (CS) and shock in a distinctive chamber. Latent inhibition of the chamber was induced by extensively preexposing the rats to the chamber. The day after conditioning, fear was assessed by presenting the CS while rats were in either the conditioning chamber or a different chamber. Results: The midazolam-induced reduction of fear was reversed (i.e. fear was partially recovered) if rats were tested in the different context, and was completely prevented if the conditioning context had been latently inhibited. These two effects were not additive since, when the conditioning context had been latently inhibited, rats showed less fear in the different context than in the conditioning context. Conclusions: We argue that midazolam does not disrupt conditioning, but imbues the conditioning context with control over retrieval of the CS-shock association. In this regard, the effects of midazolam closely parallel those of extinction.

L20 ANSWER 60 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

2001:59297 Document No. 134:204705 Ristocetin cofactor and collagen binding activities normalized to antigen levels for a rapid diagnosis of type 2 von Willebrand disease: Single center comparison of four different assays. Federici, Augusto B.; Canciani, Maria Teresa; Forza, Ileana; Cozzi, Giovanna (Angelo Bianchi Bonomi Hemophilia Thrombosis Center, IRCCS Maggiore Hospital, University of Milan, Milan, Italy). Thrombosis and Haemostasis, 84(6), 1127-1128 (English) 2000. CODEN: THHADQ. ISSN: 0340-6245. Publisher: F. K. Schattauer Verlagsgesellschaft mbH.

AB Type 2 von Willebrand Disease (VWD) can be identified by low von Willebrand Factor (VWF) activity in the presence of low/normal VWF antigen (VWF:Ag). The authors have organized an intra-laboratory study with the following **aims**: (1) to compare several assays for VWF:RCo and VWF:CB and (2) to evaluate whether a RCo/Ag and/or CB/Ag ratio could be used for a rapid distinction between type 1 and 2 VWD.

L20 ANSWER 61 OF 149 MEDLINE on STN

2001117024. PubMed ID: 11191188. The behaviour and self-esteem of children with specific speech and language difficulties. Lindsay G; Dockrell J. (Psychology and Special Needs Research Unit, Centre for Educational Development, Appraisal and Research, University of Warwick, Coventry, CV4, 7AL, UK.. geoff.lindsay@warwick.ac.uk) . British journal of educational psychology, (2000 Dec) 70 Pt 4 583-601. Journal code: 0370636. ISSN: 0007-0998. Pub. country: England: United Kingdom. Language: English.

AB BACKGROUND: Children with specific speech and language difficulties (SSLD) may have associated difficulties that impair their access to the curriculum, and their social relationships at home and in school. **AIMS**: (i) To identify the range of additional problems experienced by children with SSLD in different educational contexts; (ii) to consider the relationship between these problems and the child's current language status and (iii) to consider the child's self-esteem and the extent to which self-esteem is associated with the primary language problem or other associated difficulties. **SAMPLE**: Sixty-nine children (17 girls, 52 boys) aged 7-8 years (Year 3) who had been identified as having SSLD, 59 from two local education authorities and 10 from regional special schools for children with severe speech and language difficulties. **METHOD**: The children were assessed on a range of cognitive, language and educational measures; children and teachers completed a measure of the children's self-esteem (Pictorial Scale of Perceived Competence and Social Acceptance); teachers and parents completed a behavioural questionnaire (Strengths and Difficulties Questionnaire (SDQ); teachers also completed a further rating scale which included a behaviour subscale (Junior Rating Scale: JRS). **RESULTS**: The children's behaviour was rated as significantly different from the norm on both the SDQ and JRS, with the parents more likely to rate the child as having problems, but also as having prosocial behaviour. Both teachers and parents tended to rate the boys as having more problems than girls on the SDQ, with significant differences for the parents' ratings occurring on the total score and the hyperactivity and conduct problems scales. The children had positive self perceptions, which were comparable to the standardisation sample, and generally significantly higher than those of the teachers. The language and educational attainment scores of the children in special and mainstream schools were generally not significantly different, but parents rated the latter group as having more behaviour difficulties. Multiple regression analyses identified language comprehension and reading comprehension as the only predictors of the parents' rating of behaviour (on the SDQ). No relationship was found with the teachers' ratings. **CONCLUSIONS**: Behavioural difficulties, but not low self-esteem, are common in children of 7-8 years with SSLD, but the differences in patterns of relationship between parents and teachers, and with respect to children attending mainstream and special schools, challenge simple interpretations of comorbidity.

L20 ANSWER 62 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

2001:311955 Document No.: PREV200100311955. The role of IL-11 in neonatal thrombocytopenia. McCloy, M. P. [Reprint author]; Howarth, L. J. [Reprint author]; Watts, T. L. [Reprint author]; Murray, N. A. [Reprint author]; Roberts, I. A. G. [Reprint author]. Department of Haematology and Neonatal Medicine, Imperial College School of Medicine, London, UK. Blood, (November 16, 2000) Vol. 96, No. 11 Part 1, pp. 564a. print.
Meeting Info.: 42nd Annual Meeting of the American Society of Hematology. San Francisco, California, USA. December 01-05, 2000. American Society of Hematology.

CODEN: BLOOAW. ISSN: 0006-4971. Language: English.

AB In preterm babies severe (platelets $<50 \times 10^9/l$) thrombocytopenia (tcp) is secondary to sepsis +/- necrotising enterocolitis (NEC) in $>90\%$ of cases. We have previously shown that impaired megakaryocytopoiesis is common in preterm babies and that thrombopoietin (Tpo) appears to be the principal regulator of platelet production with plasma levels rising during tcp and falling on resolution; both megakaryocytes (MK) and their progenitors (CFU-MK/BFU-MK) have normal in vitro Tpo sensitivity suggesting that abnormalities of Tpo responsiveness play no part in pathogenesis of tcp. However, nothing is known about the other major megakaryocytopoietic-cytokine, IL-11, in this setting. Study aims: (i) to determine plasma IL-11 levels in healthy preterm babies; (ii) to investigate plasma IL-11 responses to tcp and (iii) to determine effects of rhIL-11 (10-200 ng/ml) on MKs, CFU-MK/BFU-MK in preterms. Plasma IL-11 was measured by ELISA in 81 preterms; MKs and BFU/CFU-MK were cultured from PBMC with IL-11, Tpo or IL-11+Tpo in 17 preterms. Plasma IL-11 was undetectable ($<10\text{pg/ml}$) in all healthy non-tcp, non-septic preterms ($n=64$); increased plasma IL-11 levels ($10.3-41.5\text{ pg/ml}$) were measured in 17 preterms: 16/17 had sepsis +/- NEC, of these 8 had tcp, 8 non-tcp; 1/17 had tcp secondary to placental insufficiency. There was no correlation between IL-11/platelet count in serial samples. rhIL-11 caused dose-dependent increases in MKs/MK ploidy in preterms +/- tcp ($p<0.05$). Overall, peak increase in MKs was less with IL-11 than Tpo but IL-11+Tpo was synergistic, with max increase in MKs in non-tcp babies: 76 ± 17 (IL-11) vs 1700 ± 700 (Tpo) vs 2900 ± 1500 MK/ml (IL-11+Tpo); $p<0.05$. rhIL-11 also caused a modest dose-dependent increase in CFU-MK/BFU-MK in all babies (2.2 ± 0.4 vs $1.9 \pm 0.3 \times 10^3/\text{ml}$; IL-11 vs no cytokines; $p<0.05$); in addition, IL-11 augmented Tpo-induced CFU-MK/BFU-MK in non-tcp babies: $6.5 \pm 0.1 \times 10^3$ (IL-11+Tpo) vs $4.9 \pm 1 \times 10^3$ (Tpo), $p<0.05$; in those with tcp: $4.4 \pm 1.2 \times 10^3$ (IL-11+Tpo) vs $2.2 \pm 0.8 \times 10^3$ (Tpo); $p<0.05$. The data demonstrate that (i) Tpo, not IL-11 is confirmed as the main platelet production regulator in preterm tcp babies; (ii) normal plasma IL-11 levels in healthy neonates are $<10\text{pg/ml}$, with raised IL-11 nearly always sepsis +/- NEC associated; (iii) MK/MK progenitor deficiency, not impaired Tpo/IL-11 responsiveness, underlies preterm tcp; (iv) rhIL-11 significantly augments Tpo-induced stimulation of MK and BFU/CFU-MK in preterms. Since IL-11 improves survival in animal sepsis models, our data suggests that rhIL-11 may be useful in treating sepsis-associated tcp in preterm babies.

L20 ANSWER 63 OF 149 MEDLINE on STN DUPLICATE 40
2000200705. PubMed ID: 10735930. Plasma antioxidant levels in chronic cholestatic liver diseases. Floreani A; Baragiotta A; Martines D; Naccarato R; D'odorico A. (Department of Surgical and Gastroenterological Sciences, University of Padova, Italy.. aflor@ux1.unipd.it) . Alimentary pharmacology & therapeutics, (2000 Mar) 14 (3) 353-8. Journal code: 8707234. ISSN: 0269-2813. Pub. country: ENGLAND: United Kingdom. Language: English.

AB BAKCGROUND: A predictable consequence of cholestasis is malabsorption of fat-soluble factors, (vitamins A, D, E, K) and other free radical scavengers, such as carotenoids. It has been suggested that oxygen-derived free radicals may be involved in the pathogenesis of chronic liver damage. AIMS: (i) To evaluate retinol, alpha-tocopherol and carotenoid plasma levels in two groups of patients with chronic cholestatic liver disease (primary biliary cirrhosis and primary sclerosing cholangitis); (ii) to compare the respective plasma

levels with those of the general population; (iii) to correlate the plasma levels with disease severity. METHODS: A total of 105 patients with chronic cholestasis were included in the study: 86 with primary biliary cirrhosis (81 female, five male, mean age 55.5 +/- 11 years), 19 with primary sclerosing cholangitis (seven female, 12 male, mean age 35 +/- 11 years; six patients had associated inflammatory bowel disease); 105 sex- and age-matched subjects from the general population in the same geographical area (88 female, 17 male, mean age 51.3.5 +/- 10 years) served as controls. Carotenoids (lutein zeaxanthin, lycopene, beta-carotene, alpha-carotene, beta-cryptoxanthin), retinol and alpha-tocopherol were assayed by high-pressure liquid chromatography. A food frequency questionnaire was administered to each subject to evaluate the quality and the quantity of dietary compounds. Data were processed by analysis of variance and linear regression analysis, as appropriate. RESULTS: Both primary biliary cirrhosis and primary sclerosing cholangitis patients had significantly lower levels of retinol, alpha-tocopherol, total carotenoids, lutein, zeaxanthin, lycopene, alpha- and beta-carotene than controls ($P < 0.0001$). Among the cholestatic patients, no significant difference in the concentration of antioxidants was observed between primary biliary cirrhosis and primary sclerosing cholangitis subjects. Anti-oxidant plasma levels were not affected by the severity of the histological stage in primary biliary cirrhosis, but a negative correlation was found between total carotenoids and both alkaline phosphatase (ALP) and gammaglutamyl transpeptidase (GGT) ($P < 0.013$ and $P < 0.018$, respectively). Within the primary sclerosing cholangitis group, no correlation was found between total carotenoids and cholestatic enzymes. Nutritional intake in cholestatic patients was comparable to controls, including fruit and vegetable intake. CONCLUSIONS: Although no clinical sign of deficiency is evident, plasma levels of antioxidants are low in cholestatic patients even in early stages of the disease. This is probably due to malabsorption of fat-soluble vitamins, as well as other mechanisms of hepatic release, suggesting the need for dietary supplementation.

L20 ANSWER 64 OF 149 MEDLINE on STN DUPLICATE 41
 2000098504. PubMed ID: 10632698. Analysis of the tangled relationships between P-glycoprotein-mediated multidrug resistance and the lipid phase of the cell membrane. Ferte J. (Service de Biophysique des Proteines et des Membranes, DSV-DBCM-SBPM, CEA, Centre de Saclay, Gif-sur-Yvette, France.. ferte@dsvidf.cea.fr) . European journal of biochemistry / FEBS, (2000 Jan) 267 (2) 277-94. Ref: 258. Journal code: 0107600. ISSN: 0014-2956. Pub. country: GERMANY: Germany, Federal Republic of. Language: English.

AB P-glycoprotein (Pgp), the so-called multidrug transporter, is a plasma membrane glycoprotein often involved in the resistance of cancer cells towards multiple anticancer agents in the multidrug-resistant (MDR) phenotype. It has long been recognized that the lipid phase of the plasma membrane plays an important role with respect to multidrug resistance and Pgp because: the compounds involved in the MDR phenotype are hydrophobic and diffuse passively through the membrane; Pgp domains involved in drug binding are located within the putative transmembrane segments; Pgp activity is highly sensitive to its lipid environment; and Pgp may be involved in lipid trafficking and metabolism. Unraveling the different roles played by the membrane lipid phase in MDR is relevant, not only to the evaluation of the precise role of Pgp, but also to the understanding of the mechanism of action and function of Pgp. With this aim, I review the data from different fields (cancer research, medicinal chemistry, membrane biophysics, pharmaceutical research) concerning drug-membrane, as well as Pgp-membrane, interactions. It is emphasized that the lipid phase of the membrane cannot be overlooked while investigating the MDR phenotype. Taking into account these aspects should be useful in the search of ways to obviate MDR and could also be relevant to the study of other multidrug transporters.

L20 ANSWER 65 OF 149 MEDLINE on STN DUPLICATE 42

2000472459. PubMed ID: 10971700. Chromosomal numerical aberrations are frequent in oesophageal and gastric adenocarcinomas: a study using in-situ hybridization. Beuzen F; Dubois S; Flejou J F. (INSERM U410, Faculte Xavier Bichat, Paris, and Service d'Anatomie et de Cytologie Pathologiques, Hopital Beaujon, Clichy, France.) Histopathology, (2000 Sep) 37 (3) 241-9. Journal code: 7704136. ISSN: 0309-0167. Pub. country: ENGLAND: United Kingdom. Language: English.

AB **AIMS:** (i) To investigate and compare the numerical aberrations of chromosomes 7, 8, 11, 17 and Y in a series of 60 adenocarcinomas of the oesophagus, gastric cardia and gastric antrum; and (ii) to specify the sequence of chromosomal aberrations occurring during the neoplastic progression of Barrett's oesophagus. **METHODS AND RESULTS:** Chromosomal in-situ hybridization was performed on deparaffinized tissue sections from 20 Barrett's adenocarcinomas, 20 adenocarcinomas of the cardia and 20 adenocarcinomas of the antrum, with centromeric alpha satellite DNA probes specific for chromosomes 7, 8, 11, 17 and Y, labelled with digoxigenin. Signals were detected by immunoperoxidase staining. The copy number for each chromosome was counted in 200 tumour cells nuclei and 100 lymphocytes as controls. In parallel, the DNA content of the nuclear suspensions was measured by flow cytometry. Numerical abnormalities of the five chromosomes (loss of the Y chromosome, monosomy, trisomy, and tetrasomy) were frequently observed in the three groups of adenocarcinomas (from 40% to 65% of the cases). Sixty per cent to 75% of oesophagus and gastric adenocarcinomas were DNA-aneuploid. Chromosomal aberrations progressively increased with advancing degrees of dysplasia in Barrett's mucosa, with an increasing frequency of trisomy and loss of the Y chromosome from non-dysplastic Barrett's mucosa to invasive adenocarcinoma, and with monosomy and tetrasomy present only in invasive cancers. **CONCLUSION:** Our study confirms the high frequency of chromosomal numerical aberrations in oesophageal and gastric adenocarcinomas, without differences between adenocarcinomas of the gastric cardia and antrum. We have shown that these alterations occur early during the neoplastic transformation of Barrett's mucosa.

L20 ANSWER 66 OF 149 MEDLINE on STN

2000228386. PubMed ID: 10765569. The maintenance of cooperative and helping behaviours in cooperative groups. Gillies R M. (Graduate School of Education, University of Queensland, Brisbane, Australia.. r.gillies@mailbox.uq.edu.au) . British journal of educational psychology, (2000 Mar) 70 (Pt 1) 97-111. Journal code: 0370636. ISSN: 0007-0998. Pub. country: ENGLAND: United Kingdom. Language: English.

AB **BACKGROUND:** This study was a full-year investigation of whether children, who had previously been trained to cooperate and help each other, were able to use these behaviours in reconstituted groups without additional training one year later. **AIMS:** (i) To examine whether children who have previously been trained to cooperate demonstrate more cooperative and helping behaviours in their groups than children who had not been trained and (ii) to determine the effect of prior training on children's learning. **SAMPLE:** The study involved 144 Grade 2 children (mean age = 94.5 months; third year of schooling), from nine schools in a similar socio-demographic area of Brisbane, Australia. Sixty-four children, who had been trained in cooperative group behaviours in the previous year, were assigned to the Trained groups and 80 children, who had not received any training, were assigned to the Untrained groups. **METHOD:** The children worked in four-person, mixed-ability (high-, medium-, and low-ability), gender-balanced groups (2 males, 2 females) for one six-week social studies unit of work each term for three school terms. Videotaping occurred in the 5-6 week of each work unit. Videotapes were coded for behaviour and verbal interactions. Learning outcomes data were also collected. **RESULTS:** The children in the trained groups exhibited more cooperative behaviour and they provided more explanations, both in response to explicit and implicit requests for help across the three periods of time. The children in the trained groups used higher level cognitive strategies such as providing specific concrete facts and reasons in their interactions and they also obtained higher scores on the learning

outcomes questionnaire than their untrained peers. CONCLUSION: Young children who have been trained to cooperate and help each other are able to demonstrate these behaviours in reconstituted groups without additional training a year later.

L20 ANSWER 67 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

2000137805 EMBASE [Judgement disorder in psychopathology: Lack of comprehension or loss of reason?]. TROUBLE DU JUGEMENT EN PSYCHOPATHOLOGIE. DEFAUT DE COMPREHENSION OU PERTE DE LA RAISON?. Morin D.C.; Cortes M.J.; Decup A.; Lande H.; Morellini A.; Poirier A.. D.C. Morin, Praticien Hospitalier, Service des Urgences, Hop. Intercommunal Meulan-Mureaux, 1, rue du Fort, 78250 Meulan, France. Evolution Psychiatrique 65/1 (67-91) 2000.

Refs: 12.

ISSN: 0014-3855. CODEN: EVPSAG. Pub. Country: France. Language: French. Summary Language: English; French.

AB Acting upon the selection of individual data, the combination of which will supply the appropriate verbal expression, is based upon a particular art, i.e., that of being able to judge. The mastery of this art is never fully guaranteed. We possess the capacity to bring together heterogeneous elements (a colour and a dimensional volume, or a sensitive appearance and the name given to that appearance), but there is no rule which automatically guides the operation towards an admissible aim, i.e., an appropriate aim. In fact, each act of judgement implies a fitting together of considerations, comparisons and reassessments, the finalization of which indicates the intervention of an extrinsic argument or ratio. The most general of all ratios is that of reason, and its role consists of enclosing no matter which succession of judgements within a totality, i.e., that of the unity of the senses. The act which consists of finalizing a succession of judgements is that of comprehension. It is not the equivalent of that act which consists in interpreting or in providing a meaning, an operation which is based on the ordering of the succession of judgements involved. The activity regarding the psychotic thought process, a reasoning disorder is not implicated. If an object of thought which is understood and held to be existent is not found to be suitable (hallucinations, imposed ideas, interpretations, delusions, a bizarre state), this is because the causative operation is based on an inadequate judgement. The anomaly is the result of a malfunctioning regarding the use of those rules which link experience to the representations of the thought process. When a judgement disorder sensu stricto becomes apparent in an individual whose system has not become weakened by an organic disorder, and who therefore retains full functional integrity, that individual does not recognize the anomaly which affects him, but rather its effects. The judgemental disorder is the result of an objective error or malfunctioning, and it is then justified to adopt the approach advocated by Emmanuel Kant to investigate the nature of this disorder, i.e., the theory of schematism. The approach which constitutes a precautionary measure regarding a disorder in this inherent gift, i.e., the art of judgement, is that of adopting a critical attitude. (C) 2000 Editions scientifiques et medicales Elsevier SAS.

L20 ANSWER 68 OF 149 MEDLINE on STN DUPLICATE 43

2000395336. PubMed ID: 10877915. Reactive astrocytes of the quinolinic acid-lesioned rat striatum express GFRA1 as well as GDNF in vivo. Bresjanac M; Antauer G. (Laboratory for Neuronal Plasticity and Regeneration, School of Medicine, Institute of Pathophysiology, University of Ljubljana, Slovenia.) Experimental neurology, (2000 Jul) 164 (1) 53-9. Journal code: 0370712. ISSN: 0014-4886. Pub. country: United States. Language: English.

AB Mechanical injury of the rodent striatum has recently been shown to cause a local increase in expression of mRNAs for glial cell line-derived neurotrophic factor (GDNF) and brain-derived neurotrophic factor in the inflammatory cells, i.e., macrophages and activated microglia, respectively (3). An earlier study demonstrated an increase in GDNF mRNA

levels in the adult rat striatum after administration of subseizure doses of N-methyl-D,L-aspartate and kainic acid (20) and identified astrocytes as the likely source of GDNF mRNA in the injected striatum. Our own recent work suggests that quinolinic acid (QA) induces moderate immunoreactivity to GDNF in a population of cells resembling reactive astrocytes within 1 week following intrastriatal injection (9). Therefore, the present follow-up experiment was performed with the **aims**: (I) to look at GDNF expression in the QA-injected striatum at 28 days, (II) to look for possible immunohistochemical expression of GFRalpha1 in the QA-injected striatum at the same observation time, and (III) to use confocal microscopy of double-immunofluorescence labeling of glial-cell-specific markers to identify the cell types expressing GDNF and GFRalpha1 in the striatum at 28 days following a QA injection. Our data indicate that GDNF immunoreactivity is high in the QA-injected striatum at 28 days and that the vast majority of cells displaying high labeling for GDNF also express glial fibrillary acidic protein and have a phenotype of reactive astrocytes. Interestingly, the same cells that express GDNF also display strong cytoplasmic immunolabeling to GFRalpha1.

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L20 ANSWER 69 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 2000:412402 The Genuine Article (R) Number: 318UT. Characteristics and controlling factors of bank gullies in two semi-arid mediterranean environments. Vandekerckhove L (Reprint); Poesen J; Wijdenes D O; Gyssels G; Beuselinck L; deLuna E. CATHOLIC UNIV LOUVAIN, INST AARDWETENSCHAPPEN, LAB EXPT GEOMORPHOL, REDINGENSTR 16, B-3000 LOUVAIN, BELGIUM (Reprint); FUND SCI RES, FLANDERS, BELGIUM. GEOMORPHOLOGY (MAY 2000) Vol. 33, No. 1-2, pp. 37-58. Publisher: ELSEVIER SCIENCE BV. PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS. ISSN: 0169-555X. Pub. country: BELGIUM. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Bank gullies are gullies that are formed due to a height drop caused by a terrace or a river bank, which develop by headward retreat in erodible hillslopes. This study **aims** (i) to investigate the morphology of actively eroding bank gullies, i.e., geometrical characteristics resulting from past erosion and active erosion processes shaping the gully, and, (ii), to find relationships with environmental site characteristics, such as topographical parameters, material properties and climate. The ultimate goal is to identify the most important controlling factors of past and present bank gully erosion. Fifty-five active bank gullies formed in different lithologies by various erosion processes have been selected in the Guadalentin basin and the surroundings of Guadix (Southeast Spain). For each bank gully site, geometrical and topographical parameters of both the channel and the drainage basin were measured. Erosion features indicating activity at the gully head, such as tension cracks, plunge pools, undercutting, fluting, piping and rill or sheet erosion on sloping side walls were mapped, and samples were taken from distinct lithological layers that were considered to influence the type and intensity of erosion processes. A relationship could be shown between the presence of piping and fluting and a number of material characteristics, including particle size distribution, dispersion behaviour and electrical conductivity. On the other hand, lithology appeared not to be a differentiating factor on gully development in the long run, as expressed by the total eroded volume (V). This parameter was most strongly related to the drainage basin area in which the entire bank gully had been formed ($A(o)$), explaining 66% of the variance. The relationship is $V = 1.75 \cdot A(o) (0.59)$. No significant difference was found between regression lines through sub-datasets of different soil textural classes. Finally, multiple regression was used to include both topographical parameters and material characteristics in an explanatory and/or predictive equation for the total eroded bank gully volume. The results of the analyses using the entire dataset, including the sites in the Guadalentin as well as in the Guadix area, have been compared with the results for the separate study areas. Differences are not only related to

topographical and lithological characteristics. but may also be the consequence of a different climate in the two areas. (C) 2000 Elsevier Science B.V. All rights reserved.

L20 ANSWER 70 OF 149 MEDLINE on STN DUPLICATE 44
2000349929. PubMed ID: 10892008. Ecstasy and new patterns of drug use: a normal population study. Pedersen W; Skrondal A. (Norwegian Social Research, National Institute of Public Health, Oslo, Norway.. Willy.Pedersen@isaf.no) . Addiction (Abingdon, England), (1999 Nov) 94 (11) 1695-706. Journal code: 9304118. ISSN: 0965-2140. Pub. country: ENGLAND: United Kingdom. Language: English.

AB **AIMS:** (i) To describe illegal drug use patterns in an adolescent normal population sample with special emphasis on MDMA, ecstasy; (ii) to investigate where ecstasy is introduced in a hypothesized drug use sequence, and (iii) to contrast the predictors of ecstasy use with those of other illegal substances. Special attention was given to the relationship to subcultural music preferences and house-party-going. **DESIGN:** A school-based survey of the total cohort of adolescents enrolled in the school system in a city. **PARTICIPANTS:** 10,812 adolescents, age 14-17 years, response rate 94.3%. **SETTING:** Oslo, the capital and only metropolitan town in Norway. **MEASUREMENTS:** Social class was measured by the occupation standard ISCO 88, questions were posed as regards frequency of alcohol use and alcohol intoxication, cigarette smoking and use of cannabis, amphetamines, ecstasy and heroin. Alcohol problems were measured by a shortened version of Rutgers Alcohol Problem Index (RAPI), conduct problems were measured according to the four categories of acts forming the basis of the diagnosis conduct disorder in DSM-IV, internalizing mental health problems were measured using items from Hopkins Symptoms Checklist (HCL). A number of questions were asked as regards subcultural music preferences and house-party-going. **STATISTICAL MODELS:** A hypothesized cumulative sequence in drug use was investigated by means of latent class analysis, and the predictors of the various patterns of drug use were estimated and compared by means of multinomial logistic regression analysis. **FINDINGS:** The use of ecstasy was often intermingled with the use of cannabis, amphetamines and heroin, in a pattern of polydrug use. The latent class analysis revealed the following drug use sequence: (1) alcohol, (2) cigarettes, (3) cannabis, (4) amphetamines, (5) ecstasy and (6) heroin. There was no significant association between ecstasy use and parental social class or residential area of the town. All patterns of illegal drug use were highly associated with cigarette smoking, alcohol use, alcohol problems and conduct problems, whereas the associations with internalizing mental health problems were of less magnitude. Multinomial logistic regression analysis revealed that the use of ecstasy (E) was significantly more weakly associated with cigarette smoking than were the use of cannabis only (C), amphetamines (A) and the combination of ecstasy and amphetamines (A + E). The association between E and conduct problems (CP) was weaker than the association between CP and A and A + E. Finally, there were associations between E and A + E and House/Techno preferences and house-party-going, which were not found for C and A. **CONCLUSIONS:** Ecstasy is used by adolescents who use other legal and illegal substances in a polydrug-use pattern. The substance is introduced late in a hypothesized drug use sequence. Even so, ecstasy use seems to differ from the use of, e.g. amphetamines, in that the association with smoking and conduct problems is weaker and that the associations with subcultural music preferences and house-party-going are much stronger.

L20 ANSWER 71 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1999:471834 The Genuine Article (R) Number: 205VT. Large-eddy simulation of the convective boundary layer over an idealized patchy urban surface. Cai X M (Reprint). UNIV BIRMINGHAM, SCH GEOG, BIRMINGHAM B15 2TT, W MIDLANDS, ENGLAND (Reprint). QUARTERLY JOURNAL OF THE ROYAL METEOROLOGICAL SOCIETY (APR 1999) Vol. 125, No. 556, Part B, pp. 1427-1444. Publisher: ROYAL METEOROLOGICAL SOC. 104 OXFORD ROAD, READING RG1 7LJ, BERKS, ENGLAND. ISSN: 0035-9009. Pub. country: ENGLAND. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB

This study investigates the structure of thermal plumes driven by different patchy urban surfaces using large-eddy simulation. An idealized surface pattern with different sizes of 'park area' and 'built-up area' is assumed. These two types of urban surface correspond to 'colder' and 'hotter' areas over which different surface sensible-heat fluxes are specified. The stability parameter $Z(i)/L$ (where Z_i is the boundary-layer depth and L is the Obukhov length-scale) is large enough that a free-convection regime is considered. The study has three main aims: (i) to examine the effects of different surface patterns, including its 'skewness', on the turbulent structure and growth rate of an urban convective boundary layer (UCBL); (ii) to test the influence of model configuration, such as the domain size and the vertical resolution in the entrainment layer, on the turbulent structure of a UCBL; and (iii) to investigate the behaviour of thermal plumes in the UCBL when a weak wind shear is present. The results show that: (i) the surface pattern plays an important role in determining the power spectrum of the vertical-velocity fluctuations-the positive skewness of the surface heat-flux pattern enhances both the Lifetime of the surface-driven modes and the skewness of the vertical-velocity fluctuations, and patchy surface patterns cause higher boundary-layer growth rates for a time t within the range $4t(*) < t < 16t(*)$ (where $t(*) = Z(i)/w(*)$ and $w(*)$ is the convective velocity-scale), but contribute little at later times; (ii) the domain size must be large enough (larger than $5Z(i)$) in order to resolve correctly the surface-driven mode, and the vertical grid resolution in the entrainment layer has a small effect on the UCBL growth and on the turbulent statistics in the UCBL; and (iii) the wind is shown to have smoothing effects on the power spectrum, similar to the findings of Dornbrack and Schumann in their study of a convective boundary layer over a one-dimensional wavy terrain-for small values of the ratio $d/Z(i)$ (where d is the length-scale of the surface pattern) this effect is very significant, but for large values the effect is reduced.

L20 ANSWER 72 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1999:486855 The Genuine Article (R) Number: 207FB. Patterns of alcohol consumption and social consequences. Results from an 8-year follow-up study in Switzerland. Rehm J; Gmel G (Reprint). SWISS INST PREVENT ALCOHOL & DRUG PROBLEMS SIPA, RES DEPT, CASE POSTALE 870, CH-1001 LAUSANNE, SWITZERLAND (Reprint); SWISS INST PREVENT ALCOHOL & DRUG PROBLEMS SIPA, RES DEPT, CH-1001 LAUSANNE, SWITZERLAND; CTR ADDICT & MENTAL HLTH, ADDICT RES FDN DIV, TORONTO, ON, CANADA. ADDICTION (JUN 1999) Vol. 94, No. 6, pp. 899-912. Publisher: CARFAX PUBL CO. PO BOX 25, ABINGDON OX14 3UE, OXFORDSHIRE, ENGLAND. ISSN: 0965-2140. Pub. country: SWITZERLAND; CANADA. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB

Aims. (1) To estimate the impact of drinking patterns on negative social (behaviour) consequences. (2) To test for the additional impact of overall volume of alcohol consumed on these social consequences. (3) To explore whether the impact on social consequences of drinking patterns is comparable for measures that do and do not explicitly mention alcohol consumption. Design and setting. An 8-year follow-up to a 1987 study of the Swiss general population carried out through face-to-face interviews; the follow-up data presented in this article was collected in 1995 through a mailed questionnaire. Participants. Nine hundred and fifty-three respondents from the 1987 survey who also completed the mailed questionnaire in 1995. Measurements. Variables used were as follows: volume of drinking, eight drinking patterns differentiated by volume and frequency, four social consequences without mention of alcohol and six with mention of alcohol. All multivariate analyses control for sex, age and linguistic region. Findings. High volumes of drinking per occasion predicted negative social consequences independently of overall drinking volume. This finding was independent of explicit mention of alcohol in item formulation. For unemployment and accidents, if assessed independently of alcohol consumption, no significant relationship with either overall volume of drinking or

drinking pattern teas observed. Conclusions. Patterns of alcohol consumption are an important determinant of social problems. Future research with better design is necessary to establish their exact risk relations with different social consequences.

L20 ANSWER 73 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN DUPLICATE 45

1999:530154 Document No.: PREV199900530154. Relationships between geographical range size, body size, local abundance, and habitat breadth in North American suckers and sunfishes. Pyron, Mark [Reprint author]. School of Science, Behrend College, Pennsylvania State University Erie, Erie, PA, 16563, USA. Journal of Biogeography, (May, 1999) Vol. 26, No. 3, pp. 549-558. print.

ISSN: 0305-0270. Language: English.

AB **Aim:** I examine the relationship between geographical range size and three variables (body size, an index of habitat breadth, and an index of local abundance) within a phylogenetic framework in North American species of suckers and sunfishes. Location: North America Methods: Regressions after independent contrasts of geographical range size, body size, habitat breadth, and local abundance. Results: Species with large range sizes tend to be larger-bodied, be more locally abundant, and have higher habitat breadths. Character reconstructions support the prediction that variables associated with rarity (small geographical range size, low local abundance, low niche breadth, and large body size) evolve in unison, although large body size was associated with the opposite traits in these taxa. Gaston and Blackburn (1996a) suggested using visual identification of the lower boundary of the geographical range-body size relationship to identify extinction-prone species; this resulted in thirteenspecies that are potentially extinction-prone. Main conclusions: Similar evolutionary mechanisms appear to operate on body size and other variables related to rarity, even in distantly related taxa.

L20 ANSWER 74 OF 149 MEDLINE on STN

2000128551. PubMed ID: 10665166. Name-calling and nicknames in a sample of primary school children. Crozier W R; Dimmock P S. (School of Education, Cardiff University, Wales, UK.. crozier@cf.ac.uk) . British journal of educational psychology, (1999 Dec) 69 (Pt 4) 505-16. Journal code: 0370636. ISSN: 0007-0998. Pub. country: ENGLAND: United Kingdom. Language: English.

AB **BACKGROUND:** Name-calling, unkind nicknames and other forms of verbal harassment represent some of the most prevalent forms of bullying in school but they have been little studied. Name-calling and nicknames in particular are ambiguous social events that can serve positive as well as negative goals, and their adverse consequences can be difficult to identify. **AIMS:** (i) To assess the incidence of nicknames and name calling as reported by a sample of primary school children; (ii) to examine the kinds of names reported by children, and to relate these to names reported in other social contexts; (iii) to explore the impact that name-calling and nicknames have on children. **SAMPLE:** Pupils (N = 60) from the top two classes in a British primary school completed a questionnaire; 20 of the children were subsequently interviewed. **METHOD:** Pupils completed a questionnaire that was constructed for this study. Pupils were asked to provide examples of nicknames and to report on the types and incidence of several forms of verbal harassment. The interview included questions which aimed to explore the children's reactions to harassment. **RESULTS:** Being called disliked nicknames, called names, teased, and other forms of verbal harassment were reported by most of the sample, with more than 20% of children experiencing nasty comments and unkind nicknames on a daily basis. Girls reported more disliked nicknames than boys. The most common nicknames referred to the child's appearance, whereas nasty comments and untrue stories contained a preponderance of sexual references. In the interview, nearly all children reported that being called names and nicknames were negative experiences that caused distress. **CONCLUSIONS:** Name-calling and the assignment of unkind nicknames are prevalent and

hurtful++ features of school life. The kinds of names are similar to those reported in other studies of children, adolescents, and adults. It is proposed that these names are hurtful because they threaten the child's identity.

L20 ANSWER 75 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 46
1999344815 EMBASE [Bence Jones proteins]. BENCE JONES-PROTEINE. Boege F.. Dr. F. Boege, Medizinische Poliklinik, Universitat Wurzburg, Klinikstrasse 8, D-97070 Wurzburg, Germany. Boege.Medpoli@Mail.Uni-Wuerzburg.de. LaboratoriumsMedizin 23/9 (477-482) 1999.
Refs: 55.

ISSN: 0342-3026. CODEN: LABOD3. Pub. Country: Germany. Language: German. Summary Language: German; English.

AB Proliferative B-cell diseases can be associated with an increased production, renal turnover, and urinary excretion of free monoclonal immunoglobulin light-chains (Bence Jones proteins). The extent of urinary excretion is closely correlated to the activity of such diseases. Nephropathy develops in 50% of the patients with Bence Jones-proteinuria and is decisive for the morbidity and mortality. Host factors may modulate and sustain such a nephropathy, but Bence Jones proteins alone are sufficient to cause it. However, not all Bence Jones proteins are nephropathogenic. Thus, laboratory diagnostics should focus on the following two aims: (i), detection and quantitation of urinary Bence Jones-protein excretion. In routine clinical screening Bence Jones-proteinuria is indicated by a difference in concentration between total protein and the sum of other urinary proteins. Such an indication should subsequently be corroborated by immuno(fixation)-electrophoresis, but electrophoresis is not suited for quantitative analysis. Quantitative immunochemical measurements of Bence Jones proteins can deviate as much as 60% from the true concentration because the structural heterogeneity of these proteins modulates antigen-antibody interactions in an unpredictable manner. However, within one individual such values are proportional to the actual concentration and can therefore be used for monitoring time courses. (ii), identification of structural features related to the nephropathogenic potential of Bence Jones proteins. Apparently, the potential to cause various renal disorders (cast-nephropathy; light-chain amyloidosis, light-chain deposition disease) is coded by distinct physico-chemical properties of individual Bence Jones proteins. Knowing such properties, one could predict the consequences of Bence Jones-protein exposure to kidney function and decide on therapeutic interventions. Several structural features of Bence Jones-protein have been elucidated, which may be involved in nephropathogenesis, including protein surface charge, autoaggregation, and coprecipitation with tubular Tamm-Horsfall-glycoprotein. However, there is not yet a procedure that would allow a clear cut prediction of nephropathogenicity on the basis of an ex-vivo analysis.

L20 ANSWER 76 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
1999223125 EMBASE Carbon dioxide induced panic attacks and short term clonazepam treatment. Nardi A.E.; Valencia A.M.; Zin W.; Nascimento I.. Dr. A.E. Nardi, R. Visconde de Piraja 407/702, 22410-003 Rio de Janeiro RJ, Brazil. aenardi@novanet.com.br. Arquivos de Neuro-Psiquiatria 57/2 B (361-365) 1999.
Refs: 18.

ISSN: 0004-282X. CODEN: ANPIAM. Pub. Country: Brazil. Language: English. Summary Language: English; Portuguese.

AB **AIMS:** 1. To verify the sensibility of panic patients to a mixture of 35% CO₂ and 65% O₂. 2. To determine if a ten days treatment with clonazepam attenuates the panic attacks induced by the inhalation of 35% carbon dioxide in panic disorder. **METHOD:** We randomly selected six panic disorder subjects, using the Structured Clinical Interview for DSM-IV. All subjects went double-blindly through the inhalation of 35% CO₂ and compressed gas (atmospheric air) on two

occasions. First, at baseline, when they were drug free. Second, after a 10 days clonazepam treatment. RESULTS: Neither at baseline nor after treatment any patient had a panic attack during compressed gas inhalation. At the first test five patients (83.3%) had a severe panic attack with high levels of subjective anxiety during carbon dioxide inhalation. After 9.6 (± 3.4) days of clonazepam treatment, only two (33.3%) patients experienced a mild panic attack. CONCLUSION: This pilot study suggests the efficacy of the short term clonazepam therapy in attenuating panic attacks and supports the usefulness of the 35% carbon dioxide challenge test as an analogue method for study the efficacy of anti-panic drugs. Further placebo-controlled studies to pharmacological treatment are warranted.

L20 ANSWER 77 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

1999220798 EMBASE Total hip replacement: An audit of the provision and use of equipment. Davidson T.. T. Davidson, Perth Royal Infirmary, Taymount Terrace, Perth PH1 1NS, United Kingdom. British Journal of Occupational Therapy 62/6 (283-287) 1999.

Refs: 2.

ISSN: 0308-0226. CODEN: BJOTBY. Pub. Country: United Kingdom. Language: English. Summary Language: English.

AB Historically, Perth and Kinross Social Services supplied every total hip replacement patient with a 'hip pack' containing a raised toilet seat, a helping hand, a long-handled shoe horn and a sock/tights aid. This pack was issued by the hospital occupational therapist prior to discharge. In January 1996 the funding for this equipment was withdrawn. This move obstructed the hospital-based occupational therapists from achieving the standard practice that 'all patients will be provided with a hip pack prior to discharge'. The hip pack should be used for 6-12 weeks postoperatively to reduce the risk of dislocation. These standards are in agreement with guidelines in James (1992). The occupational therapy department was concerned that patients would be at greater risk of dislocation if this equipment was not provided. A variety of options were considered to overcome this, including patients purchasing their own equipment or the hospital trust funding a loan service. In order to support these proposals an audit was carried out with three main aims: (i) to assess whether the hospital occupational therapists were meeting the standards by providing every total hip replacement patient with equipment from a hip pack; (ii) to assess whether the standard statement that the hip pack equipment should be used for 6-12 weeks was an appropriate time scale for patients; and (iii) to obtain the patient's perspective on the proposals being explored to continue to meet the standards. There was an 85% (63/74) response rate and the results of the audit highlighted how important the equipment was to the patient. The time each item was used for varied, but many were still in use 6 months postoperatively. Due to budget constraints, patients were also asked if they would purchase some of the equipment; 51 (93%) of the 55 respondents stated that they would have purchased at least one item in the hip pack. The standards were nearly but not fully met. This was due to the lack of flexibility in the standards not acknowledging that some patients would not need equipment.

L20 ANSWER 78 OF 149 MEDLINE on STN DUPLICATE 47

2000001157. PubMed ID: 10532148. Attentional bias for emotional faces in generalized anxiety disorder. Bradley B P; Mogg K; White J; Groom C; de Bono J. (Department of Experimental Psychology, University of Cambridge, UK.) British journal of clinical psychology / the British Psychological Society, (1999 Sep) 38 (Pt 3) 267-78. Journal code: 8105533. ISSN: 0144-6657. Pub. country: ENGLAND: United Kingdom. Language: English.

AB OBJECTIVES: Recent cognitive theories propose that attentional biases cause or maintain anxiety disorders. This study had several aims: (i) to investigate such biases in generalized anxiety disorder (GAD) using naturalistic, ecologically valid stimuli, namely, emotional facial expressions; (ii) to test the emotionality hypothesis by examining biases for happy as well as threat faces; and (iii) to assess the time

course of the attentional bias. DESIGN: The dependent variable was an index of attentional bias derived from manual RTs to probe stimuli. There were four independent variables: one between-subjects variable of group (2: GAD, control), and three within-subjects variables: Type of emotional face (2: threat, happy), Stimulus duration (2: 500 ms, 1250 ms) and Half of task (2: first, second). METHOD: Attentional bias was assessed with a dot probe task. The stimuli comprised photographs of threatening, happy and neutral faces, presented using two exposure durations: 500 ms and 1250 ms. RESULTS: Anxious patients showed greater vigilance for threatening faces relative to neutral faces, compared with normal controls. This effect did not significantly vary as a function of stimulus duration. Anxious patients also showed enhanced vigilance for happy faces, but this was only significant in the second half of the task. CONCLUSIONS: The study confirmed not only that GAD patients show a bias in selective attention to threat, relative to controls, but also that this bias operates for naturalistic, non-verbal stimuli. As the attentional biases for threat and happy faces appeared to develop over a different time frame, different underlying mechanisms may be responsible.

L20 ANSWER 79 OF 149 MEDLINE on STN

1999246960. PubMed ID: 10230345. Peer victimisation at school and the health of secondary school students. Rigby K. (University of South Australia, Underdale, South Australia.) British journal of educational psychology, (1999 Mar) 69 (Pt 1) 95-104. Journal code: 0370636. ISSN: 0007-0998. Pub. country: ENGLAND: United Kingdom. Language: English.

AB BACKGROUND: Although previous studies have indicated that children who are frequently bullied by peers at school have below average health, both the generalisability of such findings across age groups and how they can be best explained have remained unclear. AIMS: (i) To examine whether reported peer victimisation is related to current levels of physical and mental health among early and late secondary school students and (ii) to determine whether degree of reported victimisation in early years of secondary schooling can predict the health status of students when they are in senior class. SAMPLE: Students were selected from those attending the first two years of schooling at a South Australian high school in 1994 (N = 276) and the last two years in 1997 (N = 126). These included a subsample (N = 78) who were assessed at school at both times. METHOD: Students completed questions which included measures of degree of peer victimisation and mental and physical health. RESULTS: For the total sample assessed in 1994, but not that of 1997, reported victimisation was significantly correlated with relatively poor physical and mental health. For the re-tested subsample, high levels of peer victimisation in the pre-testing predicted poor physical health for both sexes and poor mental health in girls. CONCLUSION: Relatively poor health was characteristic of students reporting frequent victimisation by peers in early secondary schooling and also of senior students who reported being bullied frequently three years earlier, suggesting a causal connection.

L20 ANSWER 80 OF 149 MEDLINE on STN

DUPLICATE 48

1999241912. PubMed ID: 10227373. 3D MR image analysis of the morphology of the rear foot: application to classification of bones. Stindel E; Udupa J K; Hirsch B E; Odhner D; Couture C. (Department of Radiology, University of Pennsylvania, Philadelphia 19104-6021, USA.) Computerized medical imaging and graphics : official journal of the Computerized Medical Imaging Society, (1999 Mar-Apr) 23 (2) 75-83. Journal code: 8806104. ISSN: 0895-6111. Pub. country: United States. Language: English.

AB The purpose of this work is to characterize the three-dimensional (3D) morphology of the bones of the rear foot using MR image data. It has two sub-aims: (i) to study the variability of the various computed architectural measures caused by the subjectivity and variations in the various processing operations; (ii) to study the morphology of the bones included in the peritalar complex. Each image data set utilized in this study consists of sixty sagittal slices of the foot acquired on a 1.5 T commercial GE MR system. The description of the rear foot morphology is

based mainly on the principal axes, which represent the inertia axes of the bones, and on the bone surfaces. We use the live-wire method [Falcao AX, Udupa JK, Samarasekera S, Shoba S, Hirsch BE, Lotufo RA. User-steered image segmentation paradigms: live wire and live lane. Proceedings of the Society of Photo-optical Instrumentation Engineers 1996;2710:278-288] for segmenting and forming the surfaces of the bones. In the first part of this work, we focus on the analysis of the dependence of the principal axes system on segmentation and on scan orientation. In the second part, we describe the normal morphology of the rear foot considering the four bones namely calcaneus, cuboid, navicular, and talus, and compare this to a population from the upper Pleistocene. We conclude that this non-invasive method offers a unique tool to characterize the bone morphology in live patients towards the goal of understanding the architecture and kinematics of normal and pathological joints in vivo.

L20 ANSWER 81 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 1999:493570 Document No.: PREV199900493570. Determination of Cs-134 and Cs-137 in different food-stuffs and environmental-stuffs collected from Serina's area in Lombardy. Rimoldi, E. M. [Reprint author]; Cavallone, E.; Di Giancamillo, M.; Brambilla, P.. 1st. di Radiologia Veterinaria, Via Celoria, 10, 20133, Milano, Italy. Rivista di Scienza dell'Alimentazione, (Jan.-March, 1999) Vol. 28, No. 1, pp. 1-9. print. Language: Italian.

AB After the explosion of the reactor ndegree4 in the Ukrainian Nuclear Power Plant of Chernobyl, the highest radioactive contamination in Italy was observed in Lombardy. In 1996, ten years after the Chernobyl's accident, the Authors carried out an investigation on soil samples from Serina's area, in the district of Bergamo. Ndegree158 samples have been analysed by NaI(Tl) detector (3''X3''), collected from surface soil and subsoil, running and stagnating waters, mosses, lichens, mushrooms, water-plants, fodder, leafage, berries, pine-needles, striated muscle from cattle, sheep, chamois, roe-deer, milk and cheeses from cow and goat, chicken eggs. In all the soil samples analysed Cs-137 was detectable, and its activity was constantly higher in surface soil samples and particularly in those from woods. In May, the seasonal fallout period at our latitudes, it has been detected on Alben Mount a light fallout of Cs-134. In the samples collected on poly-phyto meadows no trace of Cs-137 has been detected, while in samples from wood's ecosystem this isotope was always detectable. Cs-137 was also present in the muds of the bottom of a small natural alpine lake and in water-plants there growing. On the basis of these data the Authors infer that mosses and lichens are the best markers of environmental contamination due to Cs-137. They suggest that it is absolutely necessary to continue to control regularly every substrate included in the food chain and of zootechnic and environmental interest with the following aims: i) to study the capacity of various ecosystems to metabolize the products derived from the Chernobyl's accident; ii) to safeguard the public health against future emergencies; iii) to keep under control foodstuff for human and animal feeding, which, because of the markets' globalization, can arrive from everywhere.

L20 ANSWER 82 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN 1998:880810 The Genuine Article (R) Number: 138LH. Choosing a diagnostic cut-off for cannabis dependence. Swift W (Reprint); Copeland J; Hall W. UNIV NEW S WALES, NATL DRUG & ALCOHOL RES CTR, SYDNEY, NSW 2052, AUSTRALIA (Reprint). ADDICTION (NOV 1998) Vol. 93, No. 11, pp. 1681-1692. Publisher: CARFAX PUBL CO. PO BOX 25, ABINGDON OX14 3UE, OXFORDSHIRE, ENGLAND. ISSN: 0965-2140. Pub. country: AUSTRALIA. Language: English. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB **Aim. I** While cannabis dependence has been increasingly recognized, there is little research on the measurement issues involved in operationalizing the dependence syndrome for this drug. This paper aimed to investigate the diagnostic utility and appropriate diagnostic cut-offs of three short dependence measures among long-term cannabis users. Setting and participants. Two hundred long-term, regular cannabis users were recruited and interviewed in Sydney, Australia.

Measurements. Receiver Operating Characteristic analyses compared the diagnostic performance of the short University of Michigan CIDI, a measure of ICD-10 dependence and the Severity of Dependence Scale against the 'gold standard' of moderate or more severe DSM-III-R cannabis dependence, as diagnosed by the Substance Abuse Module of the CIDI. Findings. The measures were of equal utility in diagnosing at least moderate DSM-III-R cannabis dependence. While the optimal diagnostic cut-offs for the short University of Michigan CIDI and the ICD-10 dependence measure remained unchanged from those conventionally applied, a more liberal cut-off was optimal for the Severity of Dependence Scale. The amended prevalence of cannabis dependence was 77% using the short University of Michigan CIDI, 72% by the ICD-10 measure and 62% by the Severity of Dependence Scale. Conclusions. The three instruments were able to diagnose cannabis dependence at levels substantially better than chance. They were generally robust in terms of the optimal diagnostic cut-off in a population of long-term cannabis users. This paper provides guidelines for choosing optimal cut-offs within different contexts.

L20 ANSWER 83 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1998:699254 The Genuine Article (R) Number: 117EL. Sexual abuse and alcoholism in a female population. Spak L (Reprint); Spak F; Allebeck P. UNIV GOTEBOG, VASA HOSP, DEPT SOCIAL MED, S-41133 GOTHENBURG, SWEDEN (Reprint); UNIV GOTEBOG, DEPT SOCIAL MED, S-41133 GOTHENBURG, SWEDEN. ADDICTION (SEP 1998) Vol. 93, No. 9, pp. 1365-1373. Publisher: CARFAX PUBL CO. PO BOX 25, ABINGDON OX14 3UE, OXFORDSHIRE, ENGLAND. ISSN: 0965-2140. Pub. country: SWEDEN. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB **Aims.** (1) To study the prevalence of childhood sexual abuse before the age of 18 years (CSA) and life-time sexual abuse (LSA) in a Swedish female, general population, (2) to analyse associations, between CSA and life-time alcohol dependence or abuse (ADA), and (3) to identify possible confounding factors. Design and participants. The study was conducted in two phases. Phase I: an alcohol problem screening questionnaire was sent to 3130 women aged 25-65. The answers were scored. Phase 2: based on the questionnaire scores, a randomly selected stratified sample of 479 women was invited for an interview. Of these, 316 women participated in a structured face-to-face interview. Setting. A sector of Goteborg city with 100000 inhabitants. Measurements. The interviews focused on substance use and on social, psychological and behavioural characteristics, including experiences of sexual abuse. Clinical psychiatric diagnoses were made according to DSM-III-R. Bivariate analyses and multivariate logistic regression analyses were performed. Findings. The prevalence of CSA and LSA was 9.8% and 13.9%, respectively. CSA increased the risk for life-time ADA and anxiety, but not for depression. When potential confounding factors (e.g. early background factors, depression and anxiety) were adjusted for, CSA under 13 years of age still predicted ADA in multivariate analyses, but CSA under 18 years of age did not. Conclusions. LSA, and especially CSA under 13 years of age, are factors that should be considered in treatment of women with ADA and in psychiatric treatment of women.

L20 ANSWER 84 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1998:699250 The Genuine Article (R) Number: 117EL. Network support for drinking, Alcoholics Anonymous and long-term matching effects. Longabaugh R (Reprint); Wirtz P W; Zweben A; Stout R L. BROWN UNIV, CTR ALCOHOL & ADDICT STUDIES, BOX G-BH, PROVIDENCE, RI 02912 (Reprint); GEORGE WASHINGTON UNIV, WASHINGTON, DC; UNIV WISCONSIN, CTR ADDICT & BEHAV HLTH RES, MILWAUKEE, WI 53201; BUTLER HOSP, CTR ALCOHOL & ADDICT STUDIES, PROVIDENCE, RI 02906. ADDICTION (SEP 1998) Vol. 93, No. 9, pp. 1313-1333. Publisher: CARFAX PUBL CO. PO BOX 25, ABINGDON OX14 3UE, OXFORDSHIRE, ENGLAND. ISSN: 0965-2140. Pub. country: USA. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB **Aims.** (1) To examine the matching hypothesis that Twelve Step Facilitation Therapy (TSF) is more effective than Motivational Enhancement Therapy (MET) for alcohol-dependent clients with networks

highly supportive of drinking 3 years following treatment; (2) to test a causal chain providing the rationale for this effect. Design. Outpatients were re-interviewed 3 years following treatment. ANCOVAs tested the matching hypothesis. Setting. Outpatients from five clinical research units distributed across the United States. Participants: Eight hundred and six alcohol-dependent clients. Intervention. Clients were randomly assigned to one of three 12-week, manually-guided, individual treatments: TSF, MET or Cognitive Behavioral Coping Skills Therapy (CBT). Measurements. Network support for drinking prior to treatment, Alcoholics Anonymous (AA) involvement during and following treatment, percentage of days abstinent and drinks per drinking day during months 37-39. Findings. (1) The a priori matching hypothesis that TSF is more effective than MET for clients with networks supportive of drinking was supported at the 3 year follow-up; (2) AA involvement was a partial mediator of this effect; clients with networks supportive of drinking assigned to TSF were more likely to be involved in AA; AA involvement was associated with better 3-year drinking outcomes for such clients. Conclusions. (1) In the long-term TSF may be the treatment of choice for alcohol-dependent clients with networks supportive of drinking; (2) involvement in AA should be given special consideration for clients with networks supportive of drinking, irrespective of the therapy they will receive.

L20 ANSWER 85 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 49

1998311045 EMBASE Immunohistologic analysis of gastrointestinal and pulmonary carcinoid tumors. Al-Khafaji B.; Noffsinger A.E.; Miller M.A.; DeVoe G.; Stemmermann G.N.; Fenoglio-Preiser C.. Dr. C. Fenoglio-Preiser, Department of Pathology, Laboratory Medicine, University of Cincinnati, Cincinnati, OH 45267-0529, United States. Human Pathology 29/9 (992-999) 1998. Refs: 44.

ISSN: 0046-8177. CODEN: HPCQA4. Pub. Country: United States. Language: English. Summary Language: English.

AB Carcinoid tumors are potentially malignant neoplasms that arise in various body sites, including the lung and gastrointestinal tract. Those that appear cytologically atypical are more likely to behave aggressively than more typical carcinoid tumors. However, in the absence of cytological atypia or large tumor size, it is difficult to predict the biology of an individual tumor, because some lesions metastasize, whereas others do not. This study had four aims: (1) To study the expression pattern of p53, Ki-67, NCAM, and S-100 in carcinoid tumors and to relate these expression patterns to classical histopathologic features and to tumor location. (2) To identify nonhistological markers that might more accurately predict the early behavior of carcinoid tumors. (3) To determine whether sustentacular cells are present in carcinoid tumors arising in tissues derived from different embryological derivatives. (4) To determine the synaptophysin and chromogranin immunoreactivity in neuroendocrine tumors arising in various locations. The immunostaining reactions were quantitatively scored by three observers. Only 5 of the 39 tumors (all histologically atypical) were strongly positive for Ki-67; two of these were also strongly p53 immunoreactive. NGAM immunostaining differed according to the site of origin: 76.5% of foregut lesions, 58% of the midgut lesions, and 20% of hindgut lesions were positive. S-100 immunostaining ranged from 41% in foregut lesions to 50% in both the hindgut- and midgut-derived tumors. S-100-positive sustentacular cells were present in 20.5% of carcinoid tumors. All tumors stained with antibodies against synaptophysin. In contrast, 100% of midgut, 60% of hindgut, and 88% of foregut tumors were chromogranin positive. Carcinoid tumors tend to have low proliferative rates. p53 immunostaining tends to be strongly positive in tumors that are histologically atypical, but it is negative in typical carcinoid tumors arising in the gastrointestinal tract and lungs. Immunostaining reactions with antibodies to NCAM, S-100, and chromogranin differ depending on the site of origin. Synaptophysin stains 100% of carcinoid tumors regardless of their site of origin. In contrast, antibodies to chromogranin fail to stain 40% of hindgut tumors and 12% of foregut carcinoid tumors. S-100-positive sustentacular cells are present

in foregut and midgut tumors but not in hindgut tumors.

L20 ANSWER 86 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1998:397246 The Genuine Article (R) Number: ZN782. Impaired control scale:
cross-validation and relationships with treatment outcome. Heather N
(Reprint); Booth P; Luce A. NEWCASTLE CITY HLTH NHS TRUST, CTR ALCOHOL &
DRUG STUDIES, PLUMMER COURT, CARLIOL PL, NEWCASTLE TYNE NE1 6UR, TYNE &
WEAR, ENGLAND (Reprint); AINTREE HOSP NHS TRUST, WINDSOR CLIN, NEWCASTLE
TYNE, TYNE & WEAR, ENGLAND. ADDICTION (MAY 1998) Vol. 93, No. 5, pp.
761-771. Publisher: CARFAX PUBL CO. PO BOX 25, ABINGDON OX14 3UE,
OXFORDSHIRE, ENGLAND. ISSN: 0965-2140. Pub. country: ENGLAND. Language:
English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB **Aims.** (1) To cross-validate Australian findings on
the Impaired Control Scale (ICS) in an English sample of problem drinkers.
(2) To examine a possible improvement to the scoring of the ICS (3) To
explore the relationship of the ICS to treatment outcome. Design. In a
repeated measures design, questionnaires and interviews were administered
by trained staff during treatment and again at 6 months follow-up.
Setting. Two alcohol and drug treatment services in Newcastle and
Liverpool (UK). Participants. Two hundred and twenty-nine problem drinkers
attending as in-or outpatients, with abstinence or moderation treatment
goals. Measurements. ICS scores; typical weekly alcohol consumption
(units); degree of alcohol-related problems; severity of alcohol
dependence; and classification of outcome using consumption levels and
current alcohol-related problems, with collateral confirmation of
self-reports. Findings. The satisfactory reliability and validity of the
ICS was confirmed in an English sample of problem drinkers in treatment.
An improved 'substitution method' of scoring was developed to give a
single measure of impaired control for all subjects irrespective of degree
of attempted control. ICS scores were significantly correlated with
treatment outcome and, among a subgroup of subjects who had aimed at
abstinence but failed, predicted outcome status after the effects of
degree of dependence had been extracted. Conclusions. Impaired control
over alcohol consumption can be measured in a reliable and valid fashion
by the ICS. The ICS has potential uses in research on impaired control and
as a clinical assessment tool.

L20 ANSWER 87 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1998:809485 The Genuine Article (R) Number: 129FB. The mini-mental state
examination and the diagnosis of dementia in Brazil. Almeida O P. CNPQ,
BRASILIA, DF, BRAZIL; DEPT SAUDE MENTAL SANTA CASA SAO PAULO, UNIDADE
IDOSOS, SANTA CASA, SP, BRAZIL. ARQUIVOS DE NEURO-PSIQUIATRIA (SEP 1998)
Vol. 56, No. 3B, pp. 605-612. Publisher: ASSOC ARQUIVOS DE NEURO-
PSIQUIATRIA. PR AMADEU AMARAL 47/33, 01327-010 SAO PAULO SP, BRAZIL. ISSN:
0004-282X. Pub. country: BRAZIL. Language: Spanish.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The diagnosis of dementia is based on the presence of memory deficits
and decline of other cognitive functions. Many scales have been designed
to aid the clinician in the assessment of at risk subjects, such as the
elderly. The Mini-Mental State Examination (MMSE) is the most widely used
of such scales, although its use as an aid to the diagnosis of dementia
has not as yet been studied in a Brazilian sample of patients. The current
study was designed with 2 main aims: (1) to determine
the best cut-off point of the MMSE for the diagnosis of dementia in a
sample of elderly subjects assessed in a mental health outpatient unit
and; (2) evaluate the impact of age and schooling on MMSE scores. Two
hundred and eleven subjects aged 60 or over assessed at the Mental Health
Outpatient Unit for the elderly at 'Santa Casa de Sao Paulo' between
February 1997 and February 1998 were included in the study. They were
assessed with the SRQ-20, MMSE, and a clinical interview for the diagnosis
of dementia according to the ICD-10. Seventy patients received the
diagnosis of dementia. The MMSE cut-off point of 23/24 (cases/non-cases)
was associated with a sensitivity of 84.3% and specificity of 60.3%. MMSE
scores were associated with age ($r=-0.41$, $p<0.001$) and schooling ($F=12.69$,

$p < 0.001$). Analysis of covariance taking age into account showed that MMSE scores were significantly lower among those with no formal education ($F = 10.51$, $p < 0.001$). A cut-off point of 19/20 on the MMSE was associated with sensitivity of 80.0% and specificity of 70.9% for the diagnosis of dementia in this particular group. Subjects with previous school history were better classified to the diagnosis of dementia with the cut-off point of 23/24: sensitivity of 77.8% and specificity of 75.4%. The evaluation of elderly subjects with the MMSE should take education into account, and different cut-off points should be used accordingly as a guideline to the diagnosis of dementia.

L20 ANSWER 88 OF 149 MEDLINE on STN DUPLICATE 50
 1999098467. PubMed ID: 9883998. Helicobacter pylori serology in elderly people: a 21-year cohort comparison in 70-year-olds and a 20-year longitudinal population study in 70-90-year-olds. Gause-Nilsson I; Gnarpe H; Gnarpe J; Lundborg P; Steen B. (Department of Geriatric Medicine, Vasa Hospital, Gothenburg, Sweden.) Age and ageing, (1998 Jul) 27 (4) 433-6. Journal code: 0375655. ISSN: 0002-0729. Pub. country: ENGLAND: United Kingdom. Language: English.

AB AIMS: (i) to compare Helicobacter pylori serology in two 70-year-old cohorts in Gothenburg, Sweden, born 21 years apart, (ii) to study H. pylori serology in a 70-year-old cohort over 20 years. POPULATION AND METHOD: H. pylori serology at the age of 70 was investigated in 98 men and 132 women born in 1901/02 and in 77 men and 113 women born in 1922. In 21 men and 40 women Helicobacter serology was monitored longitudinally with examinations at 70, 81, and 90 years of age. The analyses were performed on frozen samples by use of an in-house enzyme immunoassay with a sensitivity of 0.99, specificity of 1.00 and positive and negative predictive values of 0.96 and 1.00, respectively. Absorbance values < 0.500 were interpreted as negative; values of $> \text{or} = 0.700$ were interpreted as positive, and values in between as inconclusive. RESULTS: The 70-year-old cohort, born in 1922, showed a significantly lower proportion of subjects with positive H. pylori serology in both men (57.1% vs 80.6%) and women (48.7% vs 75.8%) compared with 70-year-olds born in 1901/02. There were no significant sex differences in either cohort. No longitudinal increase or decrease could be demonstrated in those who were examined at 70, 81 and 90 years of age. CONCLUSIONS: The difference in H. pylori prevalence between the two cohorts may reflect a rapid change in socio-economic conditions in Sweden during this 20-year period.

L20 ANSWER 89 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 1999:98902 The Genuine Article (R) Number: 159XE. Management of grazed ecosystems in extensified conditions: Relevance of functional ecology and research prospects, applied to moist middle mountains. Loiseau P (Reprint); Louault F; LHomme G. INRA, UNITE AGRON FONCTIONNEMENT & GEST ECOSYST PRAIRIA, DOMAINE CROUEL, 234 AVE BREZET, F-63039 CLERMONT FERRA 2, FRANCE (Reprint); ENITA CLERMONT FERRAND, LEMPDES, FRANCE. ANNALES DE ZOOTECHNIE (OCT-DEC 1998) Vol. 47, No. 5-6, pp. 395-406. Publisher: EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER. 23 RUE LINOIS, 75724 PARIS CEDEX 15, FRANCE. ISSN: 0003-424X. Pub. country: FRANCE. Language: French. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB According to the situations encountered in extensified breeding farms, three important pieces of ecological knowledge allow to understand grassland ecosystem dynamics, in order to settle sustainable pasture management in both production and environmental aims. i) The interaction between vegetation and herbivores must be considered as well as the long term adaptation between vegetation status and stocking rate, or as the instantaneous modulation of grassland production and structure under herbivore predation. ii) The dynamics of botanical composition must be represented in terms of sensitivity and resilience to perturbations or to management changes, which condition primary phytomass production and accumulation. Extensifying grassland management induces reversible effects on the seasonal dynamics of the phytomass, but cumulative negative effects on botanical composition. Species strategies are involved in the dynamics of the spatial structure and diversity of the

vegetation. iii) The management of the nitrogen cycle allows to manipulate in a long term the soil nitrogen supplying capacity, for improving the perennity of sowed swards, or making easier the control of the phytomass under low stocking rates. The implications for N leaching are discussed.
(C) Elsevier/Inra.

L20 ANSWER 90 OF 149 MEDLINE on STN DUPLICATE 51
1998230199. PubMed ID: 9570274. Antioxidant therapy counteracts the disturbing effects of diamide and maternal ageing on meiotic division and chromosomal segregation in mouse oocytes. Tarin J J; Vendrell F J; Ten J; Cano A. (Department of Paediatrics, Obstetrics and Gynaecology, Faculty of Medicine, University of Valencia, Spain.) Molecular human reproduction, (1998 Mar) 4 (3) 281-8. Journal code: 9513710. ISSN: 1360-9947. Pub. country: ENGLAND: United Kingdom. Language: English.

AB This study **aims** (i) to ascertain whether oxidative-stress-induced disturbances in chromosomal distribution in the metaphase-II spindle of mouse oocytes can be counteracted by supplementing culture medium with antioxidants; and (ii) to determine whether supplemental intake of antioxidants neutralizes the disturbing effects of maternal ageing on segregation of chromosomes during the first meiotic division and distribution of chromosomes in the metaphase-II spindle. (i): Germinal vesicle oocytes from unstimulated 10-12 week old mice were matured in vitro in the presence or absence of diamide and/or dithiothreitol. Metaphase-II oocytes were fixed and stained with 4',6-diamidino-2-phenylindole (DAPI) to detect abnormalities in chromosomal distribution. The percentage of oocytes arrested in metaphase I (12.9% vs 28.4%; $P < \text{or} = 0.05$) or with a telophase-I chromosome configuration (0.0% vs 8.2%; $P < \text{or} = 0.0005$) was decreased in diamide-DTT-treated oocytes when compared to diamide-treated oocytes. (ii): Mice were fed, from the first day of weaning until their death, a diet supplemented or not with an antioxidant mixture of vitamin C and vitamin E. Ovulated oocytes were fixed and stained with DAPI or C-banded for chromosome analysis. The percentage of abnormal (chromosome scattering and nulloploidy) or asynchronous (anaphase I or telophase I) oocytes was 2.7-fold higher in controls than in females fed an antioxidant diet (24.4% vs 8.9%, $P < \text{or} = 0.05$). Furthermore, the percentage of aneuploidy (2.2% vs 0.0%; $P < \text{or} = 0.01$) and diploidy (5.8% vs 1.7%; $P < \text{or} = 0.05$) was significantly higher in controls than in females fed an antioxidant diet. These findings support Tarin's oxidative stress hypothesis of aneuploidy and have clinical implications for preventing both laboratory-induced and maternal-age-associated aneuploidy in human beings.

L20 ANSWER 91 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
1998:728348 The Genuine Article (R) Number: 120VD. Graphical analysis of angular momentum for collision products. Danos M (Reprint); Fano U. 4633 Q ST NW, WASHINGTON, DC 20007 (Reprint); UNIV CHICAGO, ENRICO FERMI INST, CHICAGO, IL 60637; UNIV CHICAGO, JAMES FRANCK INST, CHICAGO, IL 60637. PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS (OCT 1998) Vol. 304, No. 4, pp. 156-227. Publisher: ELSEVIER SCIENCE BV. PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS. ISSN: 0370-1573. Pub. country: USA. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The complexity of atomic and nuclear structures and their collision processes involves conservation laws, bearing mainly on angular momenta; indeed angular momentum treatments prove most laborious. The analytic treatments, preferably carried out in Racah's calculus. combine initially independent elements stepwise into structures branching out into resulting products. Graphical procedures that ensure phase and amplitude control of their manifold elements, illustrate these sequential steps and provide their results. The present report should familiarize readers with these procedures through examples of reactions of increasing complexity, bearing of course on structure calculations as well. The report has thus two **aims**: (i) computing correlation functions for reactions yielding several emitted particles (hence of arbitrary complexity) in

terms of a novel method of computation, and (ii), describing the mathematical techniques relevant to solve high-complexity angular momentum problems, including the computation of many-body systems' bound states. The complexity reflects the symmetries of the reaction products, and, more generally, of many-body system. The basic mathematical tool for such treatments is the Racah calculus which employs recoupling transformations, thus avoiding the many summations required by expansions in terms of vector coupling coefficients. The application of the Racah calculus is greatly aided by appropriate definitions and graphical procedures ensuring phase and amplitude control of their manifold elements, as well as illustrating the physical content. Beginning with photon absorption by discrete states, our examples progress to an Auger process yielding a correlation function with seven direction and polarization parameters. (C) 1998 Elsevier Science B.V. All rights reserved.

L20 ANSWER 92 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

1998:513504 The Genuine Article (R) Number: ZX087. Densities and excess volumes of pentan-3-one plus 1,2-dichloroethane, plus 1,3-dichloropropane, plus 1,4-dichlorobutane, plus trichloromethane, plus 1,1,1-trichloroethane, plus 1,1,2,2-tetrachloroethane binary mixtures at 298.15 K. Teodorescu M (Reprint); Linek J. ROMANIAN ACAD, INST PHYS CHEM IG MURGULESCU, 202 SPLAIUL INDEPENDENTEI, BUCHAREST 77208, ROMANIA (Reprint); ACAD SCI CZECH REPUB, INST CHEM PROC FUNDAMENTALS, CR-16502 PRAGUE 6, CZECH REPUBLIC. FLUID PHASE EQUILIBRIA (MAY 1998) Vol. 146, No. 1-2, pp. 155-160. Publisher: ELSEVIER SCIENCE BV. PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS. ISSN: 0378-3812. Pub. country: ROMANIA; CZECH REPUBLIC. Language: English.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Densities and excess molar volumes, V_E , Of pentan-3-one + 1,2-dichloroethane, +1,3-dichloropropane, +1,4-dichlorobutane, +trichloromethane, + 1,1,1-trichloroethane, + 1,1,2,2-tetrachloroethane are presented at 298.15 K and atmospheric pressure over the whole composition range. These measurements were performed in order to complement the data on VLE [M. Teodorescu, A. Barhala, O. Landauer, ELDATA: Int. Electron. J.. Physico-Chemical Data 3 (1997) 101-108; M. Teodorescu, K. **Aim**, I. Wichterle, Fluid Phase Equilibria, in press] and to investigate the influence of molecular structure of these chloroalkanes on V-E in their mixtures with pentan-3-one. At this temperature, V-E was found to be slightly positive at high mole fractions and slightly negative at low mole fractions of 1,2-dichloroethane in case of the first system. For all the other systems, V-E was negative. The V-E experimental results were correlated using the fourth-order Redlich-Kister equation, and the maximum likelihood procedure was applied for evaluating the adjustable parameters. (C) 1998 Elsevier Science B.V. All rights reserved.

L20 ANSWER 93 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1998:607638 Document No. 129:347379 Graphical analysis of angular momentum for collision products. Danos, Michael; Fano, Ugo (Enrico Fermi Institute, University of Chicago, 5640 South Ellis Ave., Chicago, IL, 60637, USA). Physics Reports, 304(4), 155-227 (English) 1998. CODEN: PRPLCM. ISSN: 0370-1573. Publisher: Elsevier Science B.V..

AB A review with 22 refs. The complexity of atomic and nuclear structures and their collision processes involves conservation laws, bearing mainly on angular momenta; indeed angular momentum treatments prove most laborious. The analytic treatments, preferably carried out in Racah's calculus, combine initially independent elements stepwise into structures branching out into resulting products. Graphical procedures that ensure phase and amplitude control of their manifold elements, illustrate these sequential steps and provide their results. The present report should familiarize readers with these procedures through examples of reactions of increasing complexity, bearing of course on structure calcns. as well. The report has thus two **aims**: (i) computing correlation functions for reactions yielding several emitted particles (hence of arbitrary complexity) in terms of a novel method of computation, and (ii),

describing the math. techniques relevant to solve high-complexity angular momentum problems, including the computation of many-body systems' bound states. The complexity reflects the symmetries of the reaction products, and, more generally, of many-body system. The basic math. tool for such treatments is the Racah calculus which employs recoupling transformations, thus avoiding the many summations required by expansions in terms of vector coupling coeffs. The application of the Racah calculus is greatly aided by appropriate definitions and graphical procedures ensuring phase and amplitude control of their manifold elements, as well as illustrating the phys. content. Beginning with photon absorption by discrete states, our examples progress to an Auger process yielding a correlation function with seven direction and polarization parameters.

L20 ANSWER 94 OF 149 MEDLINE on STN DUPLICATE 52
 1998276324. PubMed ID: 9613376. Scanning laser tomography Z profile signal width as an objective index of macular retinal thickening. Hudson C; Flanagan J G; Turner G S; McLeod D. (University Department of Ophthalmology, Manchester Royal Eye Hospital.) British journal of ophthalmology, (1998 Feb) 82 (2) 121-30. Journal code: 0421041. ISSN: 0007-1161. Pub. country: ENGLAND: United Kingdom. Language: English.

AB **AIMS:** (i) To evaluate the relation between retinal thickness and the Z profile signal width of a scanning laser tomographer in selected patients exhibiting clinically manifest and circumscribed macular retinal thickening; (ii) to compare the Z profile signal width values of a group of age similar normal subjects with those of the patients with macular retinal thickening; and (iii) to present the methodology underlying the Z profile signal width derivation. **METHODS:** Three patients with the following conditions were selected: widespread diabetic macular oedema; localised diabetic macular oedema; and macular hole. The patients were selected because they exhibited clinically manifest and circumscribed macular retinal thickening. Patients underwent fundus photography and a clinical examination which included fundus biomicroscopy. Fourteen age similar normal subjects were also assessed. The Heidelberg retina tomograph (HRT) was utilised to acquire seven topographic images of each macula. Z profile signal width data were analysed using custom software. Signal width was measured at 50% of the maximum intensity. **RESULTS:** For each patient with macular retinal thickening, Z profile signal width analysis (after normalisation to reduce the influence of variation in reflectance intensity between successive images) revealed a significant ($p < 0.0001$) localised increase of signal width which agreed with the HRT topographic analysis of retinal height, and also the clinical assessment of retinal thickness. The mean normalised Z profile signal width for the normal subjects (assessed over the whole image) ranged from 0.278 (SD 0.039) to 0.444 (0.063); these values compared with those obtained from patients in areas of macular retinal thickening of 0.761 (0.224) to 0.953 (0.194). Z profile signal width test-retest data for the patient with localised diabetic macular oedema were plus or minus 0.159 which compared with a mean signal width value of 0.761. **CONCLUSION:** The evidence of this study, based upon three selected patients with macular retinal thickening and 14 normal subjects, would suggest that Z profile signal width analysis offers a non-invasive, objective, topographic, and reproducible index of macular retinal thickening. Studies employing larger sample sizes are required to determine the true clinical worth of the technique.

L20 ANSWER 95 OF 149 MEDLINE on STN DUPLICATE 53
 1998364738. PubMed ID: 9701008. Review article: Medical decision models of Helicobacter pylori therapy to prevent gastric cancer. Sonnenberg A; Inadomi J M. (Department of Veterans Affairs Medical Center and University of New Mexico, Albuquerque 87108, USA.) Alimentary pharmacology & therapeutics, (1998 Feb) 12 Suppl 1 111-21. Ref: 18. Journal code: 8707234. ISSN: 0269-2813. Pub. country: ENGLAND: United Kingdom. Language: English.

AB The aim of the present article is to study the utility of Helicobacter pylori eradication programmes in decreasing the incidence of gastric

cancer. Three types of decision models are employed to pursue this aim, i.e. decision tree, present value, and declining exponential approximation of life expectancy (DEALE). 1) A decision tree allows one to model the interaction of multiple variables in great detail and to calculate the marginal cost, as well as the marginal cost-benefit ratio, of a preventive strategy. The cost of gastric cancer, the efficacy of H. pylori therapy in preventing cancer, and the cumulative probability of developing gastric cancer exert the largest influence on the marginal cost of cancer prevention. The high cost of future gastric cancer and a high efficacy of therapy make screening for H. pylori and its eradication the preferred strategy. 2) The present value is an economic method to adjust future costs or benefits to their current value using a discount rate and the length of time between now and a given time point in the future. It accounts for the depreciation of money and all material values over time. During childhood, the present value of future gastric cancer is very low. Vaccination of children to prevent gastric cancer would need to be very inexpensive to be practicable. Cancer prevention becomes a feasible option, only if the time period between the preventive measures and the occurrence of gastric cancer can be made relatively short. 3) The DEALE provides a means to calculate the increase in life expectancy that would occur, if death from a particular disease became preventable. Life expectancy of the general population is hardly affected by gastric cancer. For life expectancy to increase appreciably by vaccination or antibiotic therapy directed against H. pylori infection, these interventions would need to be focused towards a sub-population with an apriori high risk for gastric cancer.

L20 ANSWER 96 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1997:623179 Document No. 127:315580 Apoptosis-inducing molecule I and its encoding cDNA from human tissues. Ruben, Steven M. (Human Genome Sciences, Inc., USA; Ruben, Steven M.). PCT Int. Appl. WO 9733899 A1 19970918, 83 pp. DESIGNATED STATES: W: AM, AU, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LT, LV, MD, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, UA, US, UZ, VN; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1996-US3773 19960314.

AB The invention relates to apoptosis-inducing mol. I (**AIM-I**) polypeptides, polynucleotides encoding the polypeptides, methods for producing the polypeptides, in particular by expressing the polynucleotides, and agonists and antagonists of the polypeptides. **AIM-I** cDNA was discovered in a cDNA library derived from cells of a human pancreatic tumor and shown to contain an open reading frame encoding 281 amino acid residues with 48.6% similarity and 22.9% identity to human Fas ligand. Northern blot anal. shows that **AIM-I** mRNA is abundant in human heart, bone marrow, CD4+ and CD19+ peripheral blood lymphocytes, and less so in lung and kidney tissue. Cloning of human **AIM-I** cDNA was demonstrated by expression in Escherichia coli using the bacterial expression vector pQE9, expression in a baculovirus expression system using the pA2 vector, expression in COS cells using the pcDNAI/Amp vector, and gene therapeutic expression. The invention further relates to methods for utilizing such polynucleotides, polypeptides, agonists and antagonists for applications, which relate, in part, to research, diagnostic and clin. arts.

L20 ANSWER 97 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 54

97085606 EMBASE Document No.: 1997085606. Geometric structure and torsional potential of biisothianaphthene. A comparative DFT and ab initio study. Viruela P.M.; Viruela R.; Orti E.; Bredas J.-L.. E. Orti, Departament de Quimica Fisica, Universitat de Valencia, Doctor Moliner 50, E-46100 Burjassot, Valencia, Spain. enrique.orti@uv.es. Journal of the American Chemical Society 119/6 (1360-1369) 1997. Refs: 49. ISSN: 0002-7863. CODEN: JACSAT. Publisher Ident.: S 0002-7863(96)01586-7. Pub. Country: United States.

Language: English. Summary Language: English.

AB We present a study of the torsional potential of biisothianaphthene and compare it to that of bithiophene. The calculations are performed at the ab initio and semiempirical Hartree-Fock (HF), ab initio post-Hartree-Fock, and density functional theory (DFT) levels. Our study has two major aims: (i) on the physico-chemical side, to assess the optimal conformation of biisothianaphthene and evaluate the rotational barriers toward coplanar structures and (ii) on the methodological side, to assess the usefulness of DFT approaches. In contrast to previous estimates, the torsional potential of biisothianaphthene is found to differ markedly from that of bithiophene. For biisothianaphthene, strongly rotated s-cis- and s-trans-gauche minima are predicted as the most stable structures. The structural analysis fully justifies the greater stability of the s-cis-gauche conformer, thus explaining the 'unexpected' s-cis-like structure observed experimentally in the crystal. The attainment of planar conformations is prevented by the high rotational barriers: .apprx.22 kJ/mol (s-trans) and .apprx.63 kJ/mol (s-cis) at the MP2 level. Aromatic polyisothianaphthene chains are therefore predicted to be highly distorted from planarity even in the solid state, which is of importance with regard to their electronic and optical properties. DFT calculations are shown to provide geometries very close to those obtained at the MP2 level, but fail in describing the energetics of the torsional potentials because they overstabilize planar conformers. The results allow us to propose a very efficient computational approach for reliable determinations of conformational potentials in conjugated compounds. The poor quality of the potentials provided by semiempirical HF methods is emphasized.

L20 ANSWER 98 OF 149 MEDLINE on STN DUPLICATE 55
97247747. PubMed ID: 9093870. Genetic differentiation and estimation of gene flow from F-statistics under isolation by distance. Rousset F. (Laboratoire Genetique et Environnement, Universite de Montpellier II, France.. rousset@isem.univ-montp2.fr) . Genetics, (1997 Apr) 145 (4) 1219-28. Journal code: 0374636. ISSN: 0016-6731. Pub. country: United States. Language: English.

AB I reexamine the use of isolation by distance models as a basis for the estimation of demographic parameters from measures of population subdivision. To that aim, I first provide results for values of F-statistics in one-dimensional models and coalescence times in two-dimensional models, and make more precise earlier results for F-statistics in two-dimensional models and coalescence times in one-dimensional models. Based on these results, I propose a method of data analysis involving the regression of $F_{ST}/(1-F_{ST})$ estimates for pairs of subpopulations on geographic distance for populations along linear habitats or logarithm of distance for populations in two-dimensional habitats. This regression provides in principle an estimate of the product of population density and second moment of parental axial distance. In two cases where comparison to direct estimates is possible, the method proposed here is more satisfactory than previous indirect methods.

L20 ANSWER 99 OF 149 MEDLINE on STN
2000192495. PubMed ID: 10728251. Women's health in maternal and child health: time for a new tradition?. Bennett T. (Department of Maternal and Child Health, School of Public Health, University of North Carolina at Chapel Hill 27599-7400, USA.. trude_bennett@unc.edu) . Maternal and child health journal, (1997 Dec) 1 (4) 253-65. Journal code: 9715672. ISSN: 1092-7875. Pub. country: United States. Language: English.

AB OBJECTIVES: The status quo in maternal and child health (MCH) focuses on obstetric health. An emerging alternative is to broaden the notion to reproductive health. An inclusive perspective encompasses women's health issues in MCH. The purpose of this paper is to further the debate on the relationship of women's health to MCH. Specific aims are (1) to describe activities promoting women's health in MCH and (2) to examine consequences of alternative perspectives for MCH research, services, and training.

METHOD: To achieve the first objective, I discuss developments in a state health agency and pertinent documents from the MCH Section of the American Public Health Association. To address the second aim, I follow the Bush Policy Analysis Model of weighing the three paradigms against the following evaluative criteria: equity, efficiency, satisfaction, stigma, indirect effects, feasibility, sensitivity to class and race, and social responsibility. RESULTS: The obstetric approach meets most criteria in a positive fashion; reproductive health satisfies criteria more positively and less equivocally. A women's health perspective bears the most potential for improving reproductive outcomes at this time, since no area of women's general health has been definitively shown to be irrelevant to reproduction (or vice versa). CONCLUSIONS: This analysis suggests that women's health should be incorporated more fully into the MCH field, as well as other areas of public health and medicine. Once research deficits have been addressed and the scope of reproductive health delineated more clearly, the alignment of women's health with MCH may be reevaluated.

L20 ANSWER 100 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 97:453640 The Genuine Article (R) Number: XD392. The REX-ISOLDE project.
 Habs D (Reprint); Kester O; Rudolph K; Thirolf P; Hinderer G; Nolte E;
 Bollen G; RaimbaultHartmann H; Ravn H; Ames F; Liljeby L; Rensfelt K G;
 Schwalm D; vonHahn R; Repnow R; Schempp A; Ratzinger U; VanDuppen P; Huyse
 M; Walter G. LMU MUNCHEN, D-85748 GARCHING, GERMANY (Reprint); TECH UNIV
 MUNICH, D-85748 GARCHING, GERMANY; CERN, CH-1211 GENEVA 23, SWITZERLAND;
 UNIV MAINZ, D-55099 MAINZ, GERMANY; MANNE SIEGBAHN LAB PHYS, S-10405
 STOCKHOLM, SWEDEN; MAX PLANCK INST KERNPHYS, D-69029 HEIDELBERG, GERMANY;
 UNIV FRANKFURT, D-60325 FRANKFURT, GERMANY; GESELL SCHWERIONENFORSCH MBH,
 D-64220 DARMSTADT, GERMANY; KATHOLIEKE UNIV LEUVEN, INST KERN &
 STRALINGSFYS, B-3001 LOUVAIN, BELGIUM; UNIV STRASBOURG 1, F-67037
 STRASBOURG, FRANCE. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH
 SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS (APR 1997) Vol. 126,
 No. 1-4, pp. 218-223. Publisher: ELSEVIER SCIENCE BV. PO BOX 211, 1000 AE
 AMSTERDAM, NETHERLANDS. ISSN: 0168-583X. Pub. country: GERMANY;
 SWITZERLAND; SWEDEN; BELGIUM; FRANCE. Language: English.
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB REX-ISOLDE [1] is an experiment at ISOLDE/CERN with a twofold
 aim: (i) to demonstrate a novel efficient scheme for the
 acceleration of radioactive ions from the online mass separator ISOLDE to
 energies around the Coulomb barrier. (ii) to perform first nuclear physics
 experiments by studying the structure of the neutron-rich ($N = 20$, $N = 28$)
 nuclei by Coulomb excitation and neutron transfer reactions. An overview
 on the different components of the radioactive beam accelerator is given
 with special emphasis on the separation possibilities and ion number
 capabilities of the system.

L20 ANSWER 101 OF 149 MEDLINE on STN DUPLICATE 56
 97225147. PubMed ID: 9071520. Anti-implantation activity of luteal phase
 mifepristone administration is not mimicked by prostaglandin synthesis
 inhibitor or prostaglandin analogue in the rhesus monkey. Nayak N R; Ghosh
 D; Lasley B L; Sengupta J. (Department of Physiology, All India Institute
 of Medical Sciences, New Delhi, India.) Contraception, (1997 Feb) 55 (2)
 103-14. Journal code: 0234361. ISSN: 0010-7824. Pub. country: United
 States. Language: English.

AB The use of mifepristone as an anti-implantation agent in the primate has
 been explored in the rhesus monkey with two specific aims: (
 i) to determine the contraceptive efficacy of very low-dose
 mifepristone administered on mated cycle days 16, 17, and 18; and (ii) to
 test the hypothesis that alteration in endometrial prostaglandin milieu by
 using either prostaglandin analogue or prostaglandin synthesis inhibitor
 can intervene the antifertility effect induced by mifepristone. Thirty
 female monkeys were randomly assigned to one of the six treatment groups.
 Five monkeys in the control group (group 1) were subjected to mating
 during cycle days 8-22. Four out of five monkeys became pregnant in the
 first mated cycle (80%) with detection of serum mCG by 12.7 +/- 1.5 days

after ovulation. In group 2, 12 mated cycles were studied in five monkeys, mifepristone [RU486, 2 mg/day/animal, s.c. in 1 ml vehicle (1:4, benzyl benzoate:olive oil, v/v)] was given on cycle days 16, 17, and 18. In this group, no pregnancy was observed, thus providing complete pregnancy protection. Though there was an apparent extension of treatment cycle lengths in five cases with no incidence of inter-menstrual bleeding or spotting, there were no significant changes in serum estradiol (E) and progesterone (P). In group 3, four monkeys received prostaglandin (PG) synthesis inhibitor, diclofenac sodium (D, 25 mg/day/animal, i.m.) on cycle days 16, 17, and 18 in seven ovulatory menstrual cycles. Four of these cycles (57%) resulted in normal pregnancies; however, mCG detection (16.8 +/- 1.2 days after ovulation) was significantly ($p < 0.05$) delayed as compared to group 1. In group 4, four monkeys received 100 micrograms misoprostol (M), a PGE1 analogue, by gavage on mated cycle days 16, 17, and 18. Four pregnancies occurred in five treatment cycles (80%) with normal profiles of serum E and P; mCG was first detected 13.2 +/- 1.7 days after ovulation. In group 5, seven monkeys received same dosages of RU486 and D on mated cycle days 16, 17, and 18. One hundred percent pregnancy protection was observed with luteal phase lengthening in eight treatment cycles but with unaltered E and P profiles. In group 6, five monkeys in nine treatment cycles received same dosages of RU486 and M on mated cycle days 16, 17, and 18. One pregnancy occurred; evaluation of E and P levels showed that the drug was given in the preovulatory period, which delayed ovulation and implantation, as mCG was detected 19 days post-ovulation. A delay in vaginal bleeding was observed in four treatment cycles with unaltered E and P profiles. Low-dose mifepristone appears to be a potential candidate for luteal phase and post-coital emergency contraception. However, the hypothesis that altered endometrial prostaglandin milieu may be responsible for mediating the anti-implantation effect of RU486 does not appear to be tenable based on our results in the rhesus monkey.

L20 ANSWER 102 OF 149 MEDLINE on STN DUPLICATE 57
 97066433. PubMed ID: 8909914. Percutaneous balloon mitral valvotomy in mitral restenosis. Gupta S; Vora A; Lokhandwalla Y; Kerkar P; Gupta S; Kulkarni H; Dalvi B. (King Edward VII Memorial (KEM) Hospital, Bombay, India.) European heart journal, (1996 Oct) 17 (10) 1560-4. Journal code: 8006263. ISSN: 0195-668X. Pub. country: ENGLAND: United Kingdom. Language: English.

AB BACKGROUND: Mitral restenosis often occurs within 5 to 15 years of surgical valvotomy. Percutaneous balloon mitral valvotomy is well established as a safe and effective alternative to mitral stenosis surgery, but only a few small studies have reported on the procedure. AIM: (i) To evaluate the safety and efficacy of percutaneous balloon mitral valvotomy in patients with mitral restenosis. (ii) To evaluate the intermediate-term outcome of patients undergoing balloon mitral valvotomy after previous surgical valvotomy. (iii) To compare these patients with those undergoing balloon mitral valvotomy as the initial procedure. METHODS: We analysed our experience of 614 consecutive patients undergoing balloon valvotomy and identified 84 patients (13.7%) with mitral restenosis following prior surgical valvotomy (Group I). The remaining 530 patients (86.3%) had not undergone previous surgery (Group II). The incidence of atrial fibrillation (19% vs 5.6%), mitral valve calcification (50% vs 30.6%) and total echo score > 8 (54.8% vs 24.15%) was significantly higher in Group I. Both groups were comparable as regards their functional class, technique of valvotomy, mitral valve area (0.87 +/- 0.18 vs 0.87 +/- 0.15 cm², P = ns), mean transmitral gradient (19.63 +/- 6.01 vs 19.21 +/- 5.67 mmHg, P = ns), and mean pulmonary artery pressure (42.2 +/- 19.0 vs 40.8 +/- 14.4 mmHg, P = ns). RESULTS: After percutaneous balloon mitral valvotomy, the final mitral valve area (1.67 +/- 0.28 vs 1.69 +/- 0.29 cm², P = ns), mean transmitral-mitral gradient (6.12 +/- 3.68 vs 5.02 +/- 3.21 mmHg, P = ns) and mean pulmonary artery pressure (31.0 +/- 15.2 vs 28.5 +/- 11.1 mmHg, P = ns) were comparable. The success rate (93.0% vs 95.3%, P = ns) were similar in both groups. Significant mitral regurgitation was seen in four

(4.8%) patients in Group I and 22 (4.1%) patients in Group II (P = ns). There were two deaths (2.4%) in Group I and five (0.9%) in Group II (P = ns). The clinical and echo Doppler follow-up (8-40 months) studies showed that both groups were of similar NYHA class, and had similar mitral valve area (1.65 +/- 0.21 vs 1.66 +/- 0.3 cm²) and transmitral gradients (7.1 +/- 3.8 vs 5.9 +/- 3.5 mmHg). CONCLUSION: We conclude that percutaneous balloon mitral valvotomy can be performed safely and effectively in patients with mitral restenosis following surgical valvotomy; the beneficial acute outcome is sustained, as shown at intermediate-term follow-up and is similar to that of patients undergoing balloon mitral valvotomy as an initial procedure.

L20 ANSWER 103 OF 149 MEDLINE on STN DUPLICATE 58
 97113890. PubMed ID: 8955730. Desegregating health statistics and health research in South Africa. Ellison G T; de Wet T; IJsselmuiden C B; Richter L M. (Institute for Behavioural Sciences, University of South Africa, Pretoria.) South African medical journal. Suid-Afrikaanse tydskrif vir geneeskunde, (1996 Oct) 86 (10) 1257-62. Journal code: 0404520. ISSN: 0038-2469. Pub. country: South Africa. Language: English.

AB OBJECTIVE: This article aims: (i) to re-examine the use and usefulness of categorisation based on 'race', ethnicity and 'population group' membership in public health research; and (ii) to assess the consequences of using these categories for describing, analysing and redressing disparities in health within South Africa. The utility of categorisation based on 'race', ethnicity and 'population group'. Categorising populations and comparing patterns of disease between different groups of people can be a useful technique for identifying potential causes of disease. In this context, ethnicity is a valid social concept that could be used to investigate the consequences of self-ascribed identity on health. Likewise, 'population group', as defined during apartheid in South Africa, represents a valid political concept that could be used for assessing the impact of social discrimination on health. However, both these concepts are often seen, and used, as euphemisms for 'race', even though there are no genetically distinct human subspecies that can be identified and categorised as discrete 'races'. Indeed, 'race' as a biological concept has no validity in human biology. Nevertheless, categories based on 'race', ethnicity and 'population group' continue to be used in health research, and reinforce the perception that differences in disease between different 'racial', ethnic and 'population' groups are the result of heritable biological characteristics. In so doing, they undermine support for health interventions that would otherwise address the social and political origins of 'racial' and ethnic disparities in health. The utility of 'population group' for redressing the consequences of apartheid. Despite these problems, 'population group' classification provides important information for assessing the impact of apartheid on disparities in health within South Africa. Yet, the abolition of apartheid legislation is likely to result in extensive socio-economic and geographical migration that will weaken the sensitivity and specificity of 'population group' as an indicator for identifying inequalities in health. For this reason, targeting corrective action at specific population groups in order to tackle disparities in health, runs the risk of ignoring alternative social causes of inequalities in health, and ignoring disadvantaged individuals from elsewhere in the population. The continued use of 'population group' classification might also perpetuate the root cause of disparities in health, by maintaining the process used to formalise discrimination. CONCLUSION: If the purpose of health research is to monitor inequalities in health and to help target resources aimed at reducing these inequalities, then it should seek, in its language, concepts and methods to undermine the root cause of disadvantage. Health research aimed at monitoring and redressing the consequences of social disadvantage on health should therefore focus on non-biological determinants of social disparities in health. As a general rule, health researchers should avoid using categories based on 'race', ethnicity and 'population group' when collecting and analysing health data; journal editors should not accept

articles that use these categories without justification; and health authorities should not collect data routinely segregated by 'race', ethnicity or 'population group'.

- L20 ANSWER 104 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
96:535585 The Genuine Article (R) Number: UW923. THE FLUCTUATING GRAVITATIONAL-FIELD IN INHOMOGENEOUS AND CLUSTERED SELF-GRAVITATING SYSTEMS. DELPOPOLO A (Reprint). UNIV CATANIA, IST ASTRON, CITTA UNIV, VIALE A DORIA 6, I-95125 CATANIA, ITALY (Reprint). ASTRONOMY AND ASTROPHYSICS (JUL 1996) Vol. 311, No. 2, pp. 715-720. ISSN: 0004-6361. Pub. country: ITALY. Language: ENGLISH.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
- AB In this paper I extend the results of Ahmad & Cohen (1973), regarding the study of the probability distribution of the stochastic force in homogeneous gravitational systems, to inhomogeneous gravitational ones. To this aim, I study the stochastic force distribution using N-body realizations of Plummer's spherically symmetric models. I find that the stochastic force distribution obtained for the evolved system is in good agreement with Kandrup's (1980) theory of stochastic force in inhomogeneous systems. Correlation effects that arise during the evolution of the system of particles are well described by Antonuccio-Delogu & Atrio-Barandela's (1992) theory.
- L20 ANSWER 105 OF 149 MEDLINE on STN DUPLICATE 59
96353516. PubMed ID: 8737723. Comparison of MRI and computed tomography in the various stages of plasma cell disorders: correlations with biological and histological findings. Myelome-Midi-Pyrenees Group. Laroche M; Assoun J; Sixou L; Attal M. (Service de Rhumatologie, CHU Rangueil, Toulouse, France.) Clinical and experimental rheumatology, (1996 Mar-Apr) 14 (2) 171-6. Journal code: 8308521. ISSN: 0392-856X. Pub. country: Italy. Language: English.
- AB OBJECTIVE: Our study had a double aim: (i) to evaluate the sensitivity and the specificity of computed tomography (CT) and magnetic resonance imaging (MRI) in the different stages of plasma cell disorders, and (ii) to correlate CT and MRI with the biological, cytological and histomorphometric parameters. METHODS: Twenty-four patients with MGUS according to Kyle, 12 patients with stage 1 and 12 with stage 3 myeloma, and 30 age-matched controls underwent MRI (sagittal views of the spine and coronal views of pelvis and femurs), CT (axial views from T10 to L5, sacrum, iliac crests), a histomorphometric study, determination of plasmocyte infiltration, and measurement of paraprotein, B2-microglobulin, the ca/cr ratio and osteocalcin. RESULTS: Heterogeneous osteopenia with microlacunae seen on CT scan and diffuse decreased signal intensity which remained higher than the signal of the intervertebral disk on T1 weighted sequences (MRI) were not peculiar to myeloma. Lacunae larger than 5 mm with trabecular disruption observed on CT, diffuse decreased signal intensity lower than the disk signal, and a multinodular appearance on MRI, not seen in the controls or in patients with MGUS, were observed in all stage 3 myeloma and in 40% of stage 1 myeloma patients. MGUS and stage 1 myeloma patients with abnormal MRI had a higher monoclonal component, plasma cell percentage and hypercellular bone marrow than those with normal MRI findings. MGUS or stage 1 myeloma patients with abnormal CT had a lower trabecular bone volume than those with normal CT. CONCLUSIONS: CT and MRI both reveal specific lesions in 40% of stage 1 myeloma patients. These methods are thus complementary in bone and bone marrow studies in myeloma.
- L20 ANSWER 106 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN
1998:284776 Document No. 129:59928 Spectroscopy of matrix isolated molecules. 2. Applications: pointing the way to synthesis and mechanisms in inorganic and organometallic chemistry. Downs, A. J. (Inorganic Chemistry Laboratory, Universidade of Oxford, Oxford, OX1 3QR, UK). NATO ASI Series, Series C: Mathematical and Physical Sciences, 483 (Low Temperature Molecular Spectroscopy), 45-93 (English) 1996. CODEN: NSCSDW. ISSN: 0258-2023. Publisher: Kluwer Academic Publishers.

AB A review with 74 refs. of matrix-isolation studies, with emphasis on the applications of the technique. Matrix expts. may be designed with the aim (i) of synthesizing new mols.; (ii) of elucidating the mechanisms of chemical changes; (iii) of exploring the chemical, and particularly photochem., properties of mols. supported in a solid matrix; and (iv) of studying the phys. properties of stable mols. with reference, for example, to the perturbing influence of the matrix environment. Specific case histories of synthetic studies will be developed in more detail than was possible in Part 1; these relate to Ga hydrides, Al and Ga monohalides, Cl oxides, and metal carbonyl derivs. XCr(CO)_5 , where X = Xe, H_2 , or C_2H_4 . Mechanistic studies will also be illustrated with reference to the reactions of selected metal atoms with H_2 and CH_4 ; the photochem. of Cl oxides; and the photooxidn. of metal carbonyls. The final section highlights ways in which the matrix-isolation experiment might be developed, and the potential synergy between matrix-isolation and other practical strategies, but involving samples in a fluid phase.

L20 ANSWER 107 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 60

96065126 EMBASE Document No.: 1996065126. Robust methods for multivariate analysis - a tutorial review. Liang Y.-Z.; Kvalheim O.M.. Department of Chemistry, University of Bergen, N-5007 Bergen, Norway. Chemometrics and Intelligent Laboratory Systems 32/1 (1-10) 1996. ISSN: 0169-7439. CODEN: CILSEN. Pub. Country: Netherlands. Language: English. Summary Language: English.

AB Robust methods developed in statistics and chemometrics for multivariate calibration and exploratory analysis are reviewed. Robust methods can be classified according to aim: (i) regression methods, (ii) methods for outlier detection (diagnostics), and (iii) methods for dimensionality reduction (exploratory analysis). Based on this taxonomy, some of the methods are described in detail and illustrated with examples.

L20 ANSWER 108 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 1995:401702 Document No.: PREV199598416002. The efficacy of chelation therapy and factors influencing mortality in lead intoxicated petrol sniffers. Burns, C. B. [Reprint author]; Currie, B.. P.O. Box 41096, Casuarina, NT 0811, Canada. Australian and New Zealand Journal of Medicine, (1995) Vol. 25, No. 3, pp. 197-203. CODEN: ANZJB8. ISSN: 0004-8291. Language: English.

AB Background: The use of chelating agents to treat patients with petrol sniffing encephalopathy has been controversial, since alkyllead additives in petrol are not chelatable. A high mortality has also been reported in hospitalised petrol sniffers. Aims: (i) Evaluate the efficacy of chelating agents in mobilising lead for excretion and lowering blood lead; (ii) Review factors contributing to mortality in hospitalised petrol sniffers. Methods: All males chelated between 1992-1993 were studied (n = 20). Blood and urinary lead were measured daily before and during chelation then twice weekly until discharge. Parenteral calcium disodium edetate (EDTA) and dimercaprol (BAL) were administered together, every six hours for five days, seven patients subsequently received oral D-penicillamine until discharge. Clinical details were reviewed for eight patients with petrol sniffing encephalopathy who died between 1990-1994. Results: Urinary lead excretion substantially increased during parenteral chelation (median excretion = 113 $\mu\text{M}/5$ days, compared with pre-chelation excretion = 1.1 $\mu\text{M}/\text{day}$). Median blood lead concentration fell from 4.83 $\mu\text{M}/\text{L}$ (pre-chelation) to 1.91 $\mu\text{M}/\text{L}$ (post-chelation). D-Penicillamine did not appear to increase urinary lead excretion appreciably. All eight deaths followed sepsis; five from complications of aspiration pneumonia. Conclusions: Airway maintenance and management are crucial for survival in these patients. In the short-term, parenteral chelation was effective in mobilising lead for excretion and reducing blood lead in encephalopathic petrol sniffers and was comparable to cases of inorganic lead intoxication. However, as in the treatment of inorganic lead intoxication, the long-term efficacy of chelation for petrol sniffers remains controversial. Prevention strategies against petrol sniffing at a

community level are recommended.

L20 ANSWER 109 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
95:174620 The Genuine Article (R) Number: QK077. A MECHANICAL STRAIN-INDUCED
1-AMINOCYCLOPROPANE-1-CARBOXYLIC ACID SYNTHASE GENE. BOTELLA J R; ARTECA
R N (Reprint); FRANGOS J A. PENN STATE UNIV, DEPT HORT, UNIVERSITY PK, PA,
16802 (Reprint); PENN STATE UNIV, DEPT HORT, UNIVERSITY PK, PA, 16802;
PENN STATE UNIV, DEPT CHEM ENGN, UNIVERSITY PK, PA, 16802. PROCEEDINGS OF
THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA (28 FEB
1995) Vol. 92, No. 5, pp. 1595-1598. ISSN: 0027-8424. Pub. country: USA.
Language: ENGLISH.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Ethylene production is observed in all higher plants, where it is
involved in numerous aspects of growth, development, and senescence,
1-Aminocyclopropane-1-carboxylic acid synthase (ACC synthase;
S-adenosyl-L-methionine methylthioadenosine-lyase, EC 4.4.1.14) is the key
regulatory enzyme in the ethylene biosynthetic pathway. We are reporting
an ACC synthase gene in *Vigna radiata* (mung bean) that is inducible by
mechanical strain. The ACC synthase cDNA AIM-1 was induced by mechanical
strain within 10 min, reaching a maximum at 30 min, showing a dramatic
reduction after 60 min, and showing no detectable message by 3 hr. The
kinetics of induction for AIM-1 was similar to a
mechanical strain-induced calmodulin (MBCaM-1) in *V. radiata*, whereas the
kinetics of its decline from maximum was different. When plants were
subjected to calcium-deficient conditions, supplemental calcium, calcium
chelators, calcium storage releasers, calcium ionophore, or calmodulin
antagonists, there was no effect on AIM-1, indicating that the mechanical
strain-induced AIM-1 expression is a
calcium-independent process. Induction of MBCaM-1 in all cases behaved in
the same way as AIM-1, suggesting that they share
similar mechanically activated cis- and/or trans-acting elements in their
promoter.

L20 ANSWER 110 OF 149 MEDLINE on STN DUPLICATE 61
96038331. PubMed ID: 7586715. Schwann cells and the regrowth of axons in
the mammalian CNS: a review of transplantation studies in the rat visual
system. Harvey A R; Plant G W; Tan M M. (Department of Anatomy and Human
Biology, The University of Western Australia, Nedlands, Perth, Australia.
) Clinical and experimental pharmacology & physiology, (1995 Aug) 22 (8)
569-79. Ref: 77. Journal code: 0425076. ISSN: 0305-1870. Pub. country:
Australia. Language: English.

AB 1. We have used peripheral nerve transplants or cultured Schwann cells
grafted in association with different types of polymer to study axonal
regrowth in the rat visual system. In some instances the glia were
co-grafted with fetal tectal tissue. 2. The studies have two main
aims: (i) to determine whether retinal axons can be
induced to regrow at a site distant from their cell soma, that is, after
damage to the brachial region of the optic tract; (ii) to determine
whether retinal axons exposed to Schwann cells retain the ability to
recognize their appropriate target neurons in CNS tissue. 3. In brachial
lesion studies, Schwann cells were placed in the lesion site in
association with nitrocellulose papers, within polycarbonate tubes in the
presence or absence of a supporting extracellular matrix (ECM), or within
polymer hydrogel scaffolds. Autologous sciatic nerve grafts were also
used. Immunohistochemical studies revealed the presence of regenerating
axons within all polymer bridges. Regrowth of retinal axons was also
seen, however, growth was not extensive and was limited to the proximal
1-1.5 mm of the implants. 4. In target innervation experiments, two
surgical paradigms were developed. In one experiment, a segment of
sciatic nerve was autografted onto the transected optic nerve in adult
rats and the distal end of each graft was placed adjacent to fetal tectal
(target) tissue implanted into the frontal cortex. To date, we have not
been able to demonstrate selective recognition of target regions within
tectal transplants by retinal axons exiting the sciatic nerve implants. 5.
In the second experiment, Schwann cells were mixed with fetal tectal cells

and co-grafted to the midbrain of newborn host rats. Schwann cells altered the characteristic pattern of host retinal growth into tectal grafts; in some cases axons were induced to grow away from appropriate target areas by nearby co-grafted Schwann cells. 6. In summary, Schwann cell/polymer scaffolds may provide a useful way of promoting the regrowth of damaged axons in the CNS, however: (i) in adults, at least, their effectiveness is reduced if they are located at a distance from the cell bodies giving rise to regenerating axons; (ii) in some circumstances exposure to a peripheral glial environment may affect the capacity of regenerating axons to recognize appropriate target cells in the CNS neuropil.

L20 ANSWER 111 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
95:367430 The Genuine Article (R) Number: QY754. A SCHEME FOR A DYNAMIC ERGODIC DIVERTOR IN TEXTOR. FINKEN K H (Reprint); FUCHS G; GIESEN B; HASSLER M; KOCH R; MANK G; NICOLAI A; REGISTER A; TOKAR M Z; VANNIEUWENHOVE R; VANOOST G; WOLF G H. KFA JULICH, EURATOM ASSOC, FORSCHUNGSZENTRUM, INST PLASMAPHYS, D-52425 JULICH, GERMANY (Reprint); ECOLE ROYAL MIL, KONINKLIJKE MIL SCH, EURATOM BELGIAN STATE, PLASMAFYS LAB, PHYS PLASMAS LAB, B-1040 BRUSSELS, BELGIUM. JOURNAL OF NUCLEAR MATERIALS (APR 1995) Vol. 222, pp. 448-451. ISSN: 0022-3115. Pub. country: GERMANY; BELGIUM. Language: ENGLISH.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB A helical multipolar coil system for dynamic edge ergodization of the TEXTOR plasma is proposed being energized by a three phase ac-current. This would permit a sweeping of the perturbation pattern with the aim (I) to establish a uniform distribution of the heat load at the wall components, (II) to increase the thickness of the scrape-off layer, (III) to improve the helium exhaust and to enhance impurity shielding for controlled edge radiation cooling, and (IV) to possibly influence plasma rotation. Resonant interaction with internal modes may be foreseen in a later phase.

L20 ANSWER 112 OF 149 MEDLINE on STN DUPLICATE 62
96078344. PubMed ID: 7487685. The efficacy of chelation therapy and factors influencing mortality in lead intoxicated petrol sniffers. Burns C B; Currie B. (Clinical Unit, Menzies School of Health Research, Darwin, NT.) Australian and New Zealand journal of medicine, (1995 Jun) 25 (3) 197-203. Journal code: 1264322. ISSN: 0004-8291. Pub. country: Australia. Language: English.

AB BACKGROUND: The use of chelating agents to treat patients with petrol sniffing encephalopathy has been controversial, since alkyllead additives in petrol are not chelatable. A high mortality has also been reported in hospitalised petrol sniffers. AIMS: (i) Evaluate the efficacy of chelating agents in mobilising lead for excretion and lowering blood lead; (ii) Review factors contributing to mortality in hospitalised petrol sniffers. METHODS: All males chelated between 1992-1993 were studied (n = 20). Blood and urinary lead were measured daily before and during chelation then twice weekly until discharge. Parenteral calcium disodium edetate (EDTA) and dimercaprol (BAL) were administered together, every six hours for five days, seven patients subsequently received oral D-penicillamine until discharge. Clinical details were reviewed for eight patients with petrol sniffing encephalopathy who died between 1990-1994. RESULTS: Urinary lead excretion substantially increased during parenteral chelation (median excretion = 113 microM/5 days, compared with pre-chelation excretion = 1.1 microM/day). Median blood lead concentration fell from 4.83 microM/L (pre-chelation) to 1.91 microM/L (post-chelation). D-Penicillamine did not appear to increase urinary lead excretion appreciably. All eight deaths followed sepsis; five from complications of aspiration pneumonia. CONCLUSIONS: Airway maintenance and management are crucial for survival in these patients. In the short-term, parenteral chelation was effective in mobilising lead for excretion and reducing blood lead in encephalopathic petrol sniffers and was comparable to cases of inorganic lead intoxication. However, as in the treatment of inorganic lead intoxication, the long-term efficacy of

chelation for petrol sniffers remains controversial. Prevention strategies against petrol sniffing at a community level are recommended.

L20 ANSWER 113 OF 149 MEDLINE on STN DUPLICATE 63
94244073. PubMed ID: 8187308. Effects of a slow-release formulation of the new somatostatin analogue lanreotide in TSH-secreting pituitary adenomas. Gancel A; Vuillermet P; Legrand A; Catus F; Thomas F; Kuhn J M. (Department of Endocrinology, University of Rouen, Bois-Guillaume, France.) Clinical endocrinology, (1994 Mar) 40 (3) 421-8. Journal code: 0346653. ISSN: 0300-0664. Pub. country: ENGLAND: United Kingdom. Language: English.

AB OBJECTIVE: Somatostatin analogues have been proposed for the treatment of thyrotrophinomas. However, this treatment requires several s.c. injections a day to be effective. The present study had the following aims: (i) appraisal of the efficacy of a single dose of two somatostatin analogues (lanreotide and octreotide) to acutely inhibit TSH secretion of TSH-secreting pituitary adenomas; (ii) assessment of the efficacy of a single injection of a slow release formulation of lanreotide (SR-L) in reducing TSH and thyroid hormone secretions in the same cases; and (iii) evaluation of the effects of SR-L used for 3-6 months on hormone secretion and tumour size. PATIENTS: Four patients with hyperthyroidism linked to a TSH-secreting pituitary adenoma found on pituitary magnetic resonance imaging (MRI) and subsequently proved by immunohistochemistry were studied. METHODS: In the first step of the study the patients received in a random order, vehicle, 150 micrograms octreotide and 500 micrograms lanreotide as a single s.c. injection. Measurements of plasma TSH, free T4 (fT4), free T3 (fT3) and free alpha subunit (fAS) levels were carried out before injection and then every other hour for 8 hours. In the second part of the study, after a basal blood sample (0800 h), each patient received 30 mg lanreotide as an i.m. injection of SR-L. Blood was sampled 2 hours later and then three times a week for 3 weeks in order to measure plasma TSH, fT4, fT3 and lanreotide levels using radioimmunoassays. The patients then received one SR-L injection twice or in one case three times a month for 3-6 months. Plasma TSH, fT4 and fT3 levels were measured monthly and a pituitary MRI was performed at the end of the treatment with SR-L. RESULTS: 500 micrograms lanreotide acutely reduced plasma TSH and fAS levels to the same extent as 150 micrograms octreotide. Two hours after a single i.m. injection of SR-L plasma lanreotide levels reached 7.8 +/- 0.6 micrograms/l and then progressively decreased, being 1.8 +/- 0.2 microgram/l on day 2 and 1.1 +/- 0.3 microgram/l on day 14 after the injection. Plasma TSH level decreased from basal value (mean +/- SEM 4.4 +/- 1.2 mIU/l) within 2 hours (2.5 +/- 0.8 mIU/l) and further declined to 0.8 +/- 0.2 mIU/l on day 2 following the injection. Depending on the patient, plasma TSH levels were reduced for a period of 6-15 days. Plasma fT4, fT3 levels were normalized on day 2 and remained in the normal range for a period of time of 9-20 days. During long-term treatment, abdominal cramps and diarrhoea appeared, leading to interruption of the treatment in one patient. The treatment was well tolerated in the other three patients. Plasma TSH and thyroid hormone levels progressively decreased during the treatment. No change in adenoma volume was observed after 3-6 months of therapy. CONCLUSIONS: This study shows that (i) lanreotide is able to inhibit acutely TSH secretion in thyrotrophinomas and that a single s.c. injection of 500 micrograms lanreotide is as effective as 150 micrograms octreotide; (ii) SR-L appears to be able to reduce plasma TSH and to normalize fT4 and fT3 levels for 9-20 days in patients with thyrotrophinomas; (iii) this effect is maintained throughout the treatment using two or three SR-L injections monthly for months. These results suggest that SR-L could be used as a treatment of thyrotrophinomas and avoids the drawbacks of the modes of administration of other somatostatin analogues used in such cases.

L20 ANSWER 114 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
1995:210222 Document No.: PREV199598224522. Discussion of palynological methods and paleoclimatical interpretations in northern Chile and the whole Andes. Graf, Kurt. Geographisches Inst. Univ., CH-8057 Zurich, Switzerland. Revista Chilena de Historia Natural, (1994) Vol. 67, No. 4,

pp. 405-415.

ISSN: 0375-0744. Language: English.

- AB The present paper attempts to deal with palynological data with a view to deducing statements about climatic history. The primary data were collected from Quaternary lake sediments and peat bogs during field studies, and from the literature. The methodology will be shown in the example of Northern Chile and in comparison with the Andean region on the whole; however, laboratory methods are not discussed here. In this way, we can obtain secondary data concerning the ancient vegetation cover and the paleoclimate. Two aids were used in achieving this aim, i.e. an interpretation key for Andean pollen diagrams in general, and a table especially for pollen taxa from Northern Chile. This enables paleoclimatic interpretations to be made. Furthermore, several maps focus on the entire Andes in addition to the particularly significant role played by the Atacama region within the paleoclimatic sequences. Four maps illustrate the precipitation at 2000, 5000, 11000 and 19000 yBP, followed by a synthesis chart. Around 35000-25000 yBP, Patagonia and the Andes from Ecuador northwards were more humid than today; however, the cordilleras between 5 degree S and 37 degree S were drier. These conditions changed completely in the time lapse from 23000 to 13000 yBP, and since then the Atacama region, for example, has remained somewhat more humid than today; therefore, this extreme desertification took place only during the last 1000 years. Analogous information on the paleotemperature completes the interpretation. The period between 35000 and 25000 yBP suggests interstadial conditions which caused temperatures 3-4 degree C. lower than today quite uniformly across the whole area of the Andes. This contrasts with the Pleniglacial situation between approximately 23000 and 13000 yBP: the extreme depression took place at 19000-18000 yBP, geographically in Tierradel Fuego and Colombia (-8 to -9 degree C. in comparison with the annual means from today). Somewhat less intense was this last glacial phase in Ecuador (-6 degree C.). Here and in Middle Chile, the Lateglacial lasted 4000 to 5000 years in total, distinctly longer (as much as twice the duration) than the Lateglacial experienced in Colombia and in the Atacama region. During the Postglacial, the Andes of Chile have suffered no further significant variations in annual temperature (+-1 degree C. in relation to today), except in the extreme South (2 degree to 3 degree C. higher) some 5000 years ago during the climatic optimum.

L20 ANSWER 115 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN 95:107633 The Genuine Article (R) Number: QE387. DISCUSSION OF PALYNOLOGICAL METHODS AND PALEOCLIMATIC INTERPRETATIONS IN NORTHERN CHILE AND THE WHOLE ANDES. GRAF K (Reprint). UNIV ZURICH, INST GEOG, CH-8057 ZURICH, SWITZERLAND (Reprint). REVISTA CHILENA DE HISTORIA NATURAL (DEC 1994) Vol. 67, No. 4, pp. 405-415. ISSN: 0716-078X. Pub. country: SWITZERLAND. Language: ENGLISH.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

- AB The present paper attempts to deal with palynological data with a view to deducing statements about climatic history. The primary data were collected from Quaternary lake sediments and peat bogs during field studies, and from the literature. The methodology will be shown in the example of Northern Chile and in comparison with the Andean region on the whole; however, laboratory methods are not discussed here. In this way, we can obtain secondary data concerning the ancient vegetation cover and the paleoclimate. Two aids were used in achieving this aim, i.e. an interpretation key for Andean pollen diagrams in general, and a table especially for pollen taxa from Northern Chile. This enables paleoclimatic interpretations to be made. Furthermore, several maps focus on the entire Andes in addition to the particularly significant role played by the Atacama region within the paleoclimatic sequences. Four maps illustrate the precipitation at 2000, 5000, 11000 and 19000 yBP, followed by a synthesis chart. Around 35000-25000 yBP, Patagonia and the Andes from Ecuador northwards were more humid than today; however, the cordilleras between 5-degrees S and 37-degrees S were drier. These conditions changed completely in the time lapse from 23000 to 13000 yBP,

and since then the Atacama region, for example, has remained somewhat more humid than today; therefore, this extreme desertification took place only during the last 1000 years. Analogous information on the paleotemperature completes the interpretation. The period between 35000 and 25000 yBP suggests interstadial conditions which caused temperatures 3-4-degrees-C. lower than today quite uniformly across the whole area of the Andes. This contrasts with the Pleniglacial situation between approximately 23000 and 13000 yBP; the extreme depression took place at 19000-18000yBP, geographically in Tierra del Fuego and Colombia (-8 to -9-degrees-C. in comparison with the annual means from today). Somewhat less intense was this last glacial phase in Ecuador (-6-degrees-C.). Here and in Middle Chile, the Lateglacial lasted 4000 to 5000 years in total, distinctly longer (as much as twice the duration) than the Lateglacial experienced in Colombia and in the Atacama region. During the Postglacial, the Andes of Chile have suffered no further significant variations in annual temperature (+/-1-degree-C. in relation to today), except in the extreme South (2-degrees to 3-degrees-C. higher) some 5000 years ago during the climatic optimum.

L20 ANSWER 116 OF 149 MEDLINE on STN DUPLICATE 64
 94216550. PubMed ID: 8163696. Immunohistochemical and biochemical analysis of the oestrogen regulated protein pS2, and its relation with oestrogen receptor and progesterone receptor in breast cancer. Detre S; King N; Salter J; MacLennan K; McKinna J A; Dowsett M. (Academic Department of Biochemistry, Royal Marsden Hospital, London.) Journal of clinical pathology, (1994 Mar) 47 (3) 240-4. Journal code: 0376601. ISSN: 0021-9746. Pub. country: ENGLAND: United Kingdom. Language: English.

AB AIMS--(i) To assess the validity of an immunocytochemical technique for detecting pS2 protein in paraffin wax embedded tissue; (ii) to provide further data on the relation between pS2 protein and oestrogen receptor (ER) and progesterone receptor (PgR). METHODS--Breast cancer excision biopsy specimens were obtained from 35 previously untreated patients. An immunoradiometric assay was compared with an immunohistochemical method for measuring pS2 protein. ER and PgR were measured in cytosol fractions by enzyme immunoassay and the relation between the presence of these receptors and pS2 protein was assessed before and after subdivision of the women into groups of over or under 50 years of age. RESULTS--A good correlation was seen between the immunoradiometric and immunohistochemical methods for pS2 protein measurement ($r = 0.84$; $p = 0.0001$). Log-transformed data showed a significant correlation between increasing values of ER and pS2 protein ($r = 0.45$; $p = 0.006$) and to a lesser extent between pS2 protein and PgR ($r = 0.38$; $p = 0.03$). Correlations were also shown between pS2+ and PgR+ status ($p = 0.01$), and between ER and PgR positivity ($p = 0.05$; Fisher's exact test). pS2+ protein status was only associated with ER+ status in patients aged 50 years or less. CONCLUSIONS--The two methods for pS2 analysis are virtually interchangeable. This provides strong support for using immunohistochemistry for pS2 in paraffin wax embedded tissue. The association with ER positivity and pS2+ protein status only in the premenopausal patients may be due to the higher levels of oestrogenic stimuli in that group.

L20 ANSWER 117 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN DUPLICATE 65
 94222416 EMBASE Document No.: 1994222416. Lactic acid separation from fermentation broths by reverse osmosis and nanofiltration. Timmer J.M.K.; Kromkamp J.; Robbertson T.. Netherlands Institute Dairy Research, Kernhemseweg 2, 6718 ZB Ede, Netherlands. Journal of Membrane Science 92/2 (185-197) 1994. ISSN: 0376-7388. CODEN: JMESDO. Pub. Country: Netherlands. Language: English. Summary Language: English.

AB Laboratory scale and pilot plant nanofiltration (NF) and reverse osmosis (RO) experiments with fermentation broths were performed with the following aims (i) to quantify lactic acid rejection and to determine whether a theoretical model developed in a previous paper

could be used to predict lactic acid rejection; and (ii) to quantify fouling of NF membranes and to determine the major fouling mechanism. It was found that the rejection model developed, based on the extended Nernst-Planck equation, can be used to quantify lactic acid rejection of RO and NF membranes. Especially at high fluxes the prediction of lactic acid rejection using parameters determined with lactic acid/water mixtures was quite good. At low fluxes the predicted rejection of lactic acid was usually lower. Fouling of the membrane could be quantified in terms of three resistances: a membrane resistance, an initial fouling resistance, and a time-dependent fouling resistance. Empirical equations for the initial fouling resistances were developed and time-dependent fouling could be described either by a colloidal fouling model (ultrafiltered fermentation broth) or a gel layer model (fermentation broth). Evaluation of the three resistances by simulation of continuous and batch concentration experiments showed that during NF of an ultrafiltered fermentation broth the initial fouling resistance, resulting from concentration polarization effects, was the predominant resistance. For a fermentation broth the time-dependent fouling becomes more important than the initial fouling resistance. Protein fouling is the main cause of the time-dependent fouling. Therefore, it is recommended to remove proteins by ultrafiltration before NF.

L20 ANSWER 118 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

94333280 EMBASE Document No.: 1994333280. Quality assurance and quality assessment as integral ongoing aspects of psychoanalysis and psychotherapy. Sjodin C.. Tengdalsgatan 21,S-116 41 Stockholm, Sweden. International Forum of Psychoanalysis 3/3 (183-193) 1994. ISSN: 0803-706X. CODEN: IFOPE6. Pub. Country: Sweden. Language: English. Summary Language: English; German; Spanish.

AB Quality assurance aims to give an objective measurement of results or products against standards defined beforehand. In medical health care standards are discussed in terms of structure, process and result. In psychoanalysis and long term psychotherapy structure first of all refers to the competence of the therapist and the efforts made to maintain this competence. Parameters reflecting the process are discussed with reference to 1. The way in which the patient takes contact or is referred to the analyst and the way the analyst selects patients; 2. The way in which the analyst initiates and conducts treatments with special reference to the setting; 3. The way in which transference and counter-transference develops, i.e. the psychoanalytic process, and 4. The way in which treatments are terminated or interrupted. Result refers to the general outcome of the practice and in which way it fulfills its own aims, i.e. that psychoanalytical processes are initiated and conducted. The parameters identified under each heading are documented and three types of reports are discussed, internal revision, external revision and general report.

L20 ANSWER 119 OF 149 MEDLINE on STN DUPLICATE 66

94272302. PubMed ID: 8003939. High resolution two-dimensional polyacrylamide gel electrophoresis using Immobilines. Application to the study of brain proteins. Vocanson C; Honnorat J; Aguerre M; Antoine J C; Caudie C; Belin M F. (INSERM CJF 90/10 Laboratoire de Neuropathologie, Hopital Neurologique, Lyon, France.) Cellular and molecular biology (Noisy-le-Grand, France), (1994 Feb) 40 (1) 9-16. Journal code: 9216789. ISSN: 0145-5680. Pub. country: France. Language: English.

AB Cytoplasmic soluble proteins of unknown origin but which could be associated with the development and maturation of the central nervous system are recognized by antibodies found in serum of patients with a paraneoplastic neurological syndrome. The associated antigens are of great interest in understanding these neurological pathologies. To study these antigens we describe and criticize a two dimensional polyacrylamide gel electrophoresis (2D-PAGE), using immobilized pH gradient (IPG) in first dimension. Proteins from brain complex mixtures were separated by this technique in order to identify and characterize (molecular weight,

p-isoelectric point, sequencing) a protein of interest. Results prove the high reproducibility and the good resolution of the technique. Without applying enrichment method prior to 2D-PAGE, any proteins are not sequenceable after transblotting to PVDF (polyvinylidene difluoride) membrane and Coomassie blue staining. In these cases the meaning to reach the wanted aim, i.e. sequencing, was discussed.

L20 ANSWER 120 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1995:309373 Document No. 122:111343 Fracture toughness - a novel material property to fulfill quality assurance of castings. Ray, K.K. (Department of Metallurgy and Materials Engineering, Indian Institute of Technology, Kharagpur, 721 302, India). Indian Foundry Journal, 40(5), 5-15 (English) 1994. CODEN: IFOJAI. ISSN: 0379-5446.

AB Toughness characterization using fracture mechanics concepts for defect tolerant design is well established for several component fabrications in aerospace, nuclear and power generation industries. During the last two decades, several attempts were directed to estimate fracture toughness of cast products to achieve integrity of engineering structures fabricated through this economic route. This paper examines the investigations related to fracture toughness estimation in cast materials with aims (i) to explain first why there is a trend to switch over towards fracture toughness determination from conventional impact toughness assessments in structural materials, and subsequently (ii) to evaluate the appropriateness of the various existing methodologies for determining fracture toughness of cast materials. Some results generated on fracture toughness of a cast iron using an indigenously developed technique in the author's laboratory are also incorporated.

L20 ANSWER 121 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 67

94:161441 The Genuine Article (R) Number: MZ986. INTERACTION OF POLARIZED BEAMS WITH PARTICLES AND NUCLEI. CONZETT H E (Reprint). LAWRENCE BERKELEY LAB, DIV NUCL SCI, BERKELEY, CA, 94720 (Reprint). REPORTS ON PROGRESS IN PHYSICS (JAN 1994) Vol. 57, No. 1, pp. 1-37. ISSN: 0034-4885. Pub. country: USA. Language: ENGLISH.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB This review has two aims: (i) to present the formalism which describes the spin-polarization observables in terms of spin-state transition amplitudes in a manner that reveals the required correspondence between the theoretical and experimental definitions of the observables; then (ii) to emphasize that spin physics, the experimental and theoretical investigations of spin-polarization effects in scattering and reactions, has become a clear unifying element among the otherwise seemingly disparate fields of nuclear, particle and electron-scattering physics. Illustrative examples of research results in these fields are used to demonstrate this commonality. The important role of intrinsic spin in providing experimental investigations of parity conservation, charge symmetry and time-reversal invariance is discussed.

L20 ANSWER 122 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1994:56975 Document No. 120:56975 Technique and user experience with the TWIN-Former GH. Kristensen, A.; Schible, T.; Herzog, F. (Grenaa, DK-8500, Den.). Papier (Bingen, Germany), 47(10), 593-663 (German) 1993. CODEN: PAERAY. ISSN: 0031-1340.

AB The 1st roll/blade gap-former, with a double-layer step-diffuser headbox, was started up during autumn 1992 for the production of test liner and corrugated papers. The existing fourdrinier machine PM 1 was rebuilt, installing an Escher Wyss TWIN-Former GH, and the original press section was equipped with 2 Intensa-S-shoe presses. The rebuild had 2 aims, i.e., (1) to increase the productivity of the paper machine and (2) to improve the strength values of the paper. This was intended to give better convertability and higher paper quality. The rebuild resulted in a 60% production increase, and a production increase of 100% is the present target. Up to now, the bursting pressure was increased by

20%, the CMT value for corrugating paper was increased by 7%, and the RCT value was increased by $\leq 10\%$.

- L20 ANSWER 123 OF 149 MEDLINE on STN DUPLICATE 68
93314624. PubMed ID: 8325271. EURONEST: a concerted action of the European community for the study of organic solvents neurotoxicity. Gilioli R. (Institute of Occupational Health, University of Milan, Italy.) Environmental research, (1993 Jul) 62 (1) 89-98. Journal code: 0147621. ISSN: 0013-9351. Pub. country: United States. Language: English.
- AB EURONEST, a concerted action of the European Community with the participation of most EC and some COST countries, is a project aimed at studying the epidemiological impact of CNS effects from protracted exposure to industrial chemicals in the participating countries. After a review of current knowledge, the paper examines the structure and detailed aims, i.e., the qualitative and quantitative study of exposure to neurotoxic chemicals, the performance of an investigation to contribute to the controversial issue of organic solvents CNS toxicity, the definition of the solvent-induced psychoorganic syndrome as well as its epidemiological relevance, and the influence of exposure on the quality of life, in particular on aging. The primary target population consists of workers with long-term exposure to toluene in the printing industry to establish CNS effects and no-effect level; depending on local priorities mixed solvents exposure can also be investigated. The study design is an ambidirectional cohort and sample size requirements are given. The approach as to the methods is not to choose at once among the available neurobehavioral batteries, but to produce a register of the 20-25 tests more commonly used in the different participating laboratories, in order to examine their validity, sensitivity, and reliability. From this exercise, a new more flexible battery is expected to be more effectively applicable under different conditions. Criteria for clinical diagnosis of the solvent-induced psychoorganic syndrome are given in order to be utilized in the investigation of the prevalence rates of these disorders included in the concerted action's program.
- L20 ANSWER 124 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
93:313611 The Genuine Article (R) Number: LA943. MELANESIAN AXIOLOGY, COMMUNAL LAND-TENURE, AND THE PROSPECT OF SUSTAINABLE DEVELOPMENT WITHIN PAPUA-NEW-GUINEA. LEA D R (Reprint). UNIV PAPUA NEW GUINEA, DEPT PSYCHOL & PHILOSOPHY, BOX 320, PORT MORESBY, PAPUA N GUINEA (Reprint). JOURNAL OF AGRICULTURAL & ENVIRONMENTAL ETHICS (1993) Vol. 6, No. 1, pp. 89-101. ISSN: 0893-4282. Pub. country: PAPUA NEW GUINEA. Language: ENGLISH.
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
- AB It is the contention of this paper that some progress in alleviating the social and environmental problems which are beginning to face Papua New Guinea can be achieved by supporting traditional Melanesian values through maintaining the customary system of communal land tenure. In accordance with this aim, I will proceed to contrast certain Western attitudes towards 'individual freedom', 'self-interested behaviour', 'individual and communal interests' and 'private ownership' with attitudes and values expressed in the traditional Melanesian approach. In order to demonstrate the latter, I will briefly touch upon the phenomenon of 'wantokism' and indicate how the Melanesian values associated with this concept find their locus in the system of 'customary communal ownership'. Subsequently, I will describe how the emergence of a cash economy and the attachment to Western gadgetry and products have effected injury to the environment and undermined values which have previously maintained Melanesian social cohesion. While admitting that little can be done to eradicate the desire for cash and the products it can buy, I suggest that Melanesian communities and the environment itself would receive more protection if future development in Papua New Guinea embraced a system which incorporated certain of the traditional Melanesian values through the preservation of the communal form of land tenure. Ultimately, I suggest a way in which customary communal land tenure can be integrated into the established Anglo-Australian legal system.

L20 ANSWER 125 OF 149 MEDLINE on STN DUPLICATE 69
93061286. PubMed ID: 1434829. Expression of adhesion molecules in lymphoproliferative disorders. Grossi C E; Zarccone D; Tenca C; De Rossi G; Mandelli F. (Dept. of Human Anatomy, University of Genova, Italy.) Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K, (1992 Nov) 6 Suppl 4 35-7. Ref: 41. Journal code: 8704895. ISSN: 0887-6924. Pub. country: ENGLAND: United Kingdom. Language: English.

AB We review the role of adhesion molecule expression on malignant lymphoid cells as delineated by experimental studies and clinical observation. Adhesion molecules of the Ig superfamily, integrins, selectins, and the lymphocyte homing receptor CD44 mediate cell-to-cell and cell-to-extracellular matrix interactions. These molecules have been investigated with the aim (i) of defining certain biological features of the malignant cells, (ii) of providing a rationale to understand tumor organization, metastasis and organ specificity, and (iii) of detecting disease subsets and prognostic groups.

L20 ANSWER 126 OF 149 MEDLINE on STN DUPLICATE 70
92263048. PubMed ID: 1585134. The new medical education at the Faculty of Health Sciences, Linköping University--a challenge for both students and teachers. Areskog N H. (Department of Clinical Physiology, Faculty of Health Sciences, Linköping University, Sweden.) Scandinavian journal of social medicine, (1992 Mar) 20 (1) 1-4. Journal code: 0365610. ISSN: 0300-8037. Pub. country: Sweden. Language: English.

AB The medical faculty at the Linköping University was established in 1970. Until 1986 the medical students spent their first two preclinical years in Uppsala and the last three and a half years in Linköping following a conventional medical curriculum. In the fall of 1986 the Health University (Faculty of Health Sciences) was established with a common organization and educational aims i.e. problem-based learning and multiprofessional education for six health educations, physicians, nurses, physiotherapists, occupational therapists, laboratory technologists and community care managers. The medical education in Linköping then became complete with a thorough innovation of the curriculum. The first students following the new curriculum will have their final examinations in January 1992. The experiences of teachers and students are overwhelmingly positive as shown in an evaluation from the other five health curricula of shorter duration. Since no medical students have so far completed their studies according to the new curriculum no corresponding evaluation for the medical education is yet available. However, the author here describes his experiences in the new role as tutor and examiner.

L20 ANSWER 127 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN
1993:207133 Document No. 118:207133 Key involvement of poly(ADP-ribosylation) in defense against toxic agents in molecular biology studies. Smulson, M. E. (Sch. Med., Georgetown Univ., Washington, DC, USA). Report, AFOSR-TR-92-0091; Order No. AD-A247162, 16 pp. Avail. NTIS From: Gov. Rep. Announce. Index (U. S.) 1992, 92(12), Abstr. No. 232,750 (English) 1991.

AB Poly(ADP-ribose) polymerase requires DNA for activity, and the catalytic activity of this enzyme is directly coordinated to the number of DNA strand breaks in DNA. Use of mol. techniques and the complete amino acid sequence of the enzyme, established during the past granting period, should allow the investigators to learn considerably more about the mechanism and role of this enzyme in cells exposed to stressful environments. In AIM I the authors proposed to extend the preliminary data on the insertion of full-length polymerase cDNA into various inducible and non-inducible expression vectors and retroviral vectors in both sense and antisense orientations. This would allow the authors to either inhibit (i.e through antisense mRNA expression) or intensify the translation of polymerase in a variety of eukaryotic cells. A complementary approach was proposed in AIM II where various functional

domains of the polymerase as well as site-directed mutants were to be constructed into inducible expression vectors to test whether selective inhibitors can be favorably used in cells.

L20 ANSWER 128 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1991:494322 Document No. 115:94322 Investigation on changes in physical and technological properties of water-soluble sizing agents during the ultrafiltration process. Part II: ultrafiltration of carboxymethyl (potato) starch. Bayazeed, Ahmed; Trauter, Joachim (Inst. Text. Verfahrenstech., Dtsch. Inst. Text. Faserforsch. Stuttgart, Denkendorf, D-7306, Germany). Starch/Staerke, 43(7), 262-72 (English) 1991. CODEN: STARDD. ISSN: 0038-9056.

AB A study was undertaken to achieve 2 aims, i.e., 1) the recoverability of carboxymethyl starch (I) from the diluted desizing solns. by using the ultrafiltration (UF) technique, and 2) the extent of changes in the phys. and mech. properties of CMS as sizing agent after the UF recovery. In order to investigate the effect of UF recovery on I properties, the diluted I solution was subjected to two UF cycles during the recovery, and the end product of each cycle was intensively examined. The investigations included: the characteristic UF factors (rejection "R", and flux of permeate "V"), viscosity, average mol. wts., mol. weight distribution, and the mech. properties (adhesive force, weaving properties as abrasion percent AG "dust and fluff", and cloning factor TK). The obtained results showed that: (1) the efficiency of the UF recovery of I was higher in the 2nd than the 1st cycle; (2) the viscosity of I is: (a) lower after than before the first UF cycle, and (b) higher after than before the 2nd UF cycle; (3) the average mol. wt detns. indicated the occurrence of degradation

in I mols; (4) the MWD are shifted towards unity after the UF recovery; and (5) the changes in the mech. properties of I after the UF recovery are: (a) adhesion force decreased, (b) abrasion % (dust and fluff) decreased, and (c) clinging factor TK increased.

L20 ANSWER 129 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

91:68472 The Genuine Article (R) Number: EV145. SELF-TRAPPING OF AN ELECTROMAGNETIC-FIELD AND BIFURCATION FROM THE ESSENTIAL SPECTRUM. STUART C A (Reprint). ECOLE POLYTECH FED LAUSANNE, DEPT MATH, CH-1007 LAUSANNE, SWITZERLAND (Reprint). ARCHIVE FOR RATIONAL MECHANICS AND ANALYSIS (1991) Vol. 113, No. 1, pp. 65-96. Pub. country: SWITZERLAND. Language: ENGLISH. *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS*

AB This paper has two main aims: (i) the presentation of a mathematical description of a problem concerning the self-trapping of an electromagnetic wave, and (ii) the discussion of the relationship between this problem and the phenomenon of bifurcation from the essential spectrum. In the first part, we recall the basic physical quantities that are required and then we show how the problem can be reduced to a convenient mathematical form. In contrast to the approximate equations usually used in discussing self-trapping [1, 4, 9, 13, 16, 22, 23], the solutions of our reduced problem yield exact solutions of Maxwell's equation within the context of the constitutive hypotheses generally adopted in the optical regime with an intensity-dependent refractive index.

In the second part, the reduced problem is discussed from a variational point of view used in [19-21]. By avoiding the usual approximations, we can clearly identify the precise physical significance of the parameters and norms used in this analysis. In particular, we observe that bifurcation from the essential spectrum with respect to the L2-norm is equivalent to the occurrence of self-trapping at arbitrarily small intensities. Theorem 4.6 distinguishes constitutive hypotheses for which this occurs from those for which it cannot happen.

L20 ANSWER 130 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1991:607095 Document No. 115:207095 Diploma examination [on the color of organic compounds and the dual nature of the electron] for advanced chemistry students. Oltmanns, Oltmann (Jever, W-2942, Germany). Praxis

der Naturwissenschaften, Chemie, 40(4), 43-6 (German) 1991. CODEN: PXNCAP. ISSN: 0342-8737.

AB A diploma examination is presented for advanced school chemical students with the

following 3 major aims: (i) explanations of the color of crystal violet (I) and its pH-dependency by applying linear chromophore theory to 2-dimensional dyes; (ii) recognition that the NaOH-induced decolorization of I is a 1st-order process; and (iii) emphasis of the dual particle-wave nature of the electron and the pupils understanding thereof.

L20 ANSWER 131 OF 149 MEDLINE on STN

2002598223. PubMed ID: 12284789. Population policy in South Africa: a critical perspective. Klugman B. Development Southern Africa, (1991 Feb) 8 (1) 19-34. Journal code: 101085257. ISSN: 0376-835X. Report No.: IND-8019297; PIP-072265; POP-00208214. Pub. country: South Africa. Language: English.

AB The argument in this article is that population growth and the concept of balancing resources against population growth is flawed when the context, in this case South Africa, is gross inequalities in resource distribution. The fact is that causes of poverty are located in the social and political structures which give people unequal access to existing resources or international aid. Population trends reflect the mode of production of that society. It is argued that the Malthusian law of population and the theory of demographic transition is ahistorical and inaccurate. The theory does not explain why population growth rates change. In South Africa, fertility reflects lack of control over one's life and poverty. Migrant labor in South Africa undermined normal social institutions and disrupted family life. Government has emphasized a fear of a future population crisis because of resource shortages and a fear of the growing black population. The South African population development program is extracted and discussed. Questions are raised about the theory of demographic transition, the way resource allocation is ascertained, the relationship between resources and population in a specific area, and the relationship between population growth and development in general. The theory of demographic transition is examined and the Western influences which contributed to population growth through requests for changes in sexual mores and the effects of colonization. When demographic transition theory postulates that mortality rates decline with industrialization as a result of access to medical care and an improved diet, it doesn't take into account the discriminatory health care allocation under apartheid, or the displacement of rural people from their land and undermining of the rural peasantry. Separate development has led to inferior schooling and lack of access to skilled employment. In discussing the availability of resources in South Africa, the question is raised as to whether there is an absolute limit to water, or whether water management or water conservation is at issue, as in the case example of the Transkei. What is economical reflects political decisions about national priorities when consideration is given to alternative strategies for increasing the water supply, or solving pollution problems. The potential to feed South Africans is substantiated, and the problems of maldistribution identified. In establishing the balance between family planning and development, the Population Development Program (PDP) expresses contradictory aims ; i.e., seeking community involvement of a politically disenfranchised population. The concept of overpopulation and the application of population control programs in South Africa does not address the problems of poverty and powerlessness.

L20 ANSWER 132 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1990:538837 Document No. 113:138837 Second-order approximations to laser-assisted charged-particle scattering. Trombetta, Fabio (Ist. Fis., Univ. Palermo, Palermo, 90123, Italy). Physical Review A: Atomic, Molecular, and Optical Physics, 42(3), 1346-9 (English) 1990. CODEN: PLRAAN. ISSN: 0556-2791.

AB Multiphoton free-free transitions within a full second-order-Born treatment of the scattering potential are considered with two specific

aims: (i) to test some widely used approxns. against exact calcs.; and (ii) to present differential cross sections for laser-assisted electron and positron scattering, in the regime of intermediate field intensities (up to 10^{13} W/cm²). In the case of a field linearly polarized along the incident particle momentum, the results clearly discriminate among the approxns., setting interesting limitations to each of them as functions of the scattering-potential features and of the field parameters. Each approach shows good performance for particular scattering-angle ranges, pointing to the need for improved techniques to work out fully reliable and easy-to-handle approxns.

L20 ANSWER 133 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 1990:477933 Document No.: PREV199090117353; BA90:117353. RESPONSES OF BIOPORE CHANNELS FROM ROOTS TO COMPRESSION BY VERTICAL STRESSES. BLACKWELL P S [Reprint author]; GREEN T W; MASON W K. WESTERN AUST, DEP AGRIC, DIV RESOURCE MANAGEMENT, GERALDTON, W AUST 6530. Soil Science Society of America Journal, (1990) Vol. 54, No. 4, pp. 1088-1091. CODEN: SSSJD4. ISSN: 0361-5995. Language: ENGLISH.

AB The channels created in soil by roots and soil animals (biopores) play an important role in the subsequent movement of water, air, and new roots through irrigated clay soils in southeastern Australia. The maintenance of these biopores is critical for both crop productivity and erosion control. If these biopores are to remain open, they must be able to withstand the vertical stresses associated with vehicle and animal traffic. This study had three **aims:** (i) to examine the influence on porosity and permeability of naturally occurring channels, (ii) to determine the magnitude of vertical stresses that artificially created channels could withstand, (iii) to test the effect of channel angle to the direction of the stress. Air-filled porosity of soil cores at -10 J/kg was decreased in a linear fashion as the applied stress was increased from 50 to 400 kPa. The reduction in air-filled porosity was relatively independent of the size or the presence of biopores. However, the intrinsic permeability of the soil cores to air was positively correlated with the diameter of the biopores, and the permeability was little affected by applied stresses up to 200 kPa if the initial diameter of the biopores was > 3.5 mm. The resistance of the channels to stresses was greatest if the vertical stress was parallel to the axis of the channels. Agricultural practices on these soils should not only encourage formation of biopores, but should also minimize stresses > 200 kPa to the subsoil so that these biopores can remain open.

L20 ANSWER 134 OF 149 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN 91:37256 The Genuine Article (R) Number: ER942. ELECTROPHYSIOLOGICAL BASIS OF CHAOTIC DYNAMICS OF EXCITATION IN CARDIAC PURKINJE-FIBERS. CHIALVO D R (Reprint); GILMOUR R F; JALIFE J. SUNY HLTH SCI CTR, DEPT PHARMACOL, 766 IRVING AVE, SYRACUSE, NY, 13210 (Reprint); CORNELL UNIV, SCH VET MED, DEPT PHYSIOL, ITHACA, NY, 14853. PROCEEDINGS OF THE KONINKLIJKE NEDERLANDSE AKADEMIE VAN WETENSCHAPPEN-BIOLOGICAL CHEMICAL GEOLOGICAL PHYSICAL AND MEDICAL SCIENCES (1990) Vol. 93, No. 4, pp. 395-407. Pub. country: USA. Language: ENGLISH.

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Nonlinear dynamics of excitation in response to repetitive stimulation were analyzed experimentally in nonpacemaking cardiac Purkinje fibers. Microelectrode techniques and a suction pipette for DC current pulse application were used toward the following **aims:** i) to investigate the relevant electrophysiological parameters that are responsible for the global rate-dependent behavior of these fibers; ii) to determine the role of nonlinearity in the mechanisms of this behavior; and iii) to construct a difference-equation model which could be used to predict simple as well as complex rate-dependent dynamics in cardiac conducting tissues. Both experimental and model results suggest that monotonic recovery of excitability leads to predictable activation patterns (i.e., 1:1, 2:1, 3:1, etc) whose stimulus/response ratios change monotonically. On the other hand, in the presence of super-normality in the excitability curve, there are three different stimulus amplitude

ranges which give rise to two different types of behavior: Pulses of relatively low or high amplitude at decreasing cycle lengths induce monotonic changes in the activation ratio. Yet, pulses of intermediate intensity induce very complex nonmonotonic changes in the activation ratio and can also lead to chaotic dynamics. These results may provide insight into the mechanism of rate-dependent conduction disturbances.

- L20 ANSWER 135 OF 149 MEDLINE on STN DUPLICATE 71
91054137. PubMed ID: 2241720. A survey of dementia carers: doctors' communications, problem behaviours and institutional care. Brodaty H; Griffin D; Hadzi-Pavlovic D. (Memory Disorders Clinic, Prince Henry Hospital, Little Bay, NSW.) Australian and New Zealand journal of psychiatry, (1990 Sep) 24 (3) 362-70. Journal code: 0111052. ISSN: 0004-8674. Pub. country: Australia. Language: English.
- AB A survey of carers belonging to the Alzheimer's Disease and Related Disorders Society (ADARDS) had three aims: (i) to investigate the process of health professionals providing information to patients and carers; (ii) to determine the nature of problems burdening carers; and (iii) to examine factors associated with institutional placement. Carers reported on deficiencies in the provision of information and indicated their preferences as to how the information should be given. ADARDS, general practitioners and other health professionals were reportedly helpful, with each appearing to have a role in providing information about dementia. Multiple problem behaviours were reported by most carers, especially difficulties with communication, the need for constant supervision and disruption to personal life. Institutional care was most highly correlated with dependency problems, severity of dementia and a non-spouse carer. Implications include the need for training of doctors in communication and education about dementia with particular attention to management of dependency problems.
- L20 ANSWER 136 OF 149 MEDLINE on STN DUPLICATE 72
90127091. PubMed ID: 2153555. Cell cycle- and differentiation stage-dependent variation of dUTPase activity in higher plant cells. Pardo E G; Gutierrez C. (Centro de Investigaciones Biologicas, Madrid, Spain.) Experimental cell research, (1990 Jan) 186 (1) 90-8. Journal code: 0373226. ISSN: 0014-4827. Pub. country: United States. Language: English.
- AB Deoxyuridine triphosphate nucleotidohydrolase (dUTPase), a key enzyme in pyrimidine nucleotide metabolism, specifically hydrolyzes deoxyuridine triphosphate (dUTP) to deoxyuridine monophosphate and inorganic pyrophosphate. This enzyme activity has been studied in cellular extracts from Allium cepa root meristem cells with two specific aims: (i) to determine how the properties of the plant enzyme compare with those of dUTPase purified from other sources, and (ii) to analyze the relationship between dUTPase activity and cell proliferation and cell differentiation. Plant dUTPase is highly specific for dUTP, with an apparent K_m of 6 μM , is highly sensitive to EDTA and it is probably a metalloenzyme. Our results demonstrate the presence of high levels of dUTPase in both resting and proliferating root meristem cells. The enzyme activity appears to be tightly regulated during the cell cycle. dUTPase activity increases at the G1/S boundary, remains high throughout S phase, and shows almost undetectable levels during G1 and G2. We have also found that dUTPase activity in differentiated cells, located in the mature portion of the root, is barely detectable. Altogether our results indicate that dUTPase activity is modulated by the proliferation rate and that this activity progressively decreases as cells initiate their differentiation program.
- L20 ANSWER 137 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
1989:422830 Document No.: PREV198988081088; BA88:81088. HOW SELFISH SHOULD STRONGER SIBS BE. PARKER G A [Reprint author]; MOCK D W; LAMEY T C. DEP ENVIRONMENTAL AND EVOLUTIONARY BIOL, UNIV LIVERPOOL, LIVERPOOL L69 3BX, ENGLAND, UK. American Naturalist, (1989) Vol. 133, No. 6, pp. 846-868. CODEN: AMNTA4. ISSN: 0003-0147. Language: ENGLISH.
- AB We develop a series of models to investigate how selfish stronger progeny

should be toward their weaker (full-sib) nest mates. The first represents a sibling hierarchy in which the strongest sib can take any amount of the total resources, the next strongest can take any amount from the remainder, and so on. When there are just two sibs, the stronger sib should increase its share of the total resources until its marginal increase in fitness reduces to half of that of the weaker sib. With more than two sibs, the difference in the shares of two consecutive members of the hierarchy should increase down the dominance rank, such that the greatest difference in fitness occurs between the last two members, and the least between the top two. Fitness differences are most exaggerated when resources are relatively scarce. In our second hierarchy model, we show that these conclusions relate to "longterm aims" (i.e., ideal states to be achieved by the end of the nestling period). If we allow that, at a given time, sibs may differ markedly in their profit from food uptake, there quite clearly become instances when a dominant sib should allow a weaker nest mate to take more of a given meal. Roughly, this should occur at the moment during a given feeding bout when the asymptotic increment in fitness for the weaker sib is more than twice that for the stronger sib. In a third model, we investigate a case in which a sib's share of the resource is determined by competitive begging. Each sib can increase its share by a unilateral increase in its begging expenditure. We seek phenotypic strategies for such expenditures that are evolutionarily stable, one for each sib, given that a stronger sib gains more resources for a given effort. For two sibs, the weaker sib always spends more on begging, and the stronger sib's expenditure decreases as the competitive asymmetry between sibs increases. Somewhat counterintuitively, we find that the disparity between begging efforts is greater when resources are plentiful and that, although the stronger sib's share is greater when resources are scarce, the weaker sib may (paradoxically) attain the greater share when resources are plentiful. Despite this latter effect, the net gain (food uptake minus begging cost) of the stronger sib is always higher and its fitness therefore greater. Preliminary field tests of these models, using data from a brood-reducing species (the great egret, *Casmerodius albus*) are present. The main prediction from the hierarchy model, that the two elder siblings in three-chick broods should take far larger shares of limited available resources, was supported. However, a basic prediction generated by the begging model was not upheld by the field data, at least for the measure of begging used in this analysis (number of scissors-like grasps of the parent's bill).

L20 ANSWER 138 OF 149 MEDLINE on STN DUPLICATE 73
 88226483. PubMed ID: 3286459. Morphological and hemodynamic changes in the portal venous system after distal splenorenal shunt: an ultrasound and pulsed Doppler study. Bolondi L; Gaiani S; Mazziotti A; Casanova P; Cavallari A; Gozzetti G; Barbara L. (First Department of Medicine, University of Bologna, Italy.) Hepatology (Baltimore, Md.), (1988 May-Jun) 8 (3) 652-7. Journal code: 8302946. ISSN: 0270-9139. Pub. country: United States. Language: English.

AB We investigated a group of patients who underwent distal splenorenal shunt using high-resolution real-time equipment and a duplex scanner with the aims: (i) to evaluate the rate of visualization of shunt; (ii) to assess change in size in the portal vein, and (iii) to characterize the flow pattern in the splenic vein and to study flow direction and velocity in the portal vein, thus adding new data on the efficacy of this operation in maintaining hepatic perfusion. Real-time ultrasonography was performed in 29 patients before surgery, after 7 to 30 days and after 4 to 12 months. Direct visualization of the shunt was achieved in 53.5% of the patients. Mean caliber of the portal vein significantly decreased after the operation: preoperative = 1.52 ± 0.32 ; after 7 to 30 days = 1.32 ± 0.16 (p less than 0.001), and after 4 to 12 months = 0.99 ± 0.19 (p less than 0.001). The overall postoperative incidence of portal thrombosis was 22.2%. Thirteen of these patients also underwent a postoperative (4 to 36 months) pulsed Doppler investigation. Flow towards anastomosis was demonstrated in the splenic vein in 11

patients, and in 7 cases, typical caval pulsatility was observed. Decreased hepatopetal flow in the portal vein was found in 10 of 13 patients. In two patients, no flow was detectable and in the other the flow was hepatofugal. On the basis of our data, we can affirm that pulsed Doppler investigation may provide useful data for the evaluation of shunt patency and preservation of a decreased portal hepatic perfusion in the majority of patients.

L20 ANSWER 139 OF 149 CAPLUS COPYRIGHT 2004 ACS on STN

1987:563509 Document No. 107:163509 JET: evolution, status and prospects. Rebut, P. H.; Lallia, P. (Jt. Undertaking, JET, Abingdon/Oxfordshire, OX14 3EA, UK). Philosophical Transactions of the Royal Society of London, Series A: Mathematical, Physical and Engineering Sciences, 322(1563), 17-30 (English) 1987. CODEN: PTRMAD. ISSN: 0080-4614.

AB When the objectives and the parameters of JET were defined .apprx.10 yr ago, the existing knowledge of plasma behavior in tokamaks showed the advantages of the axial symmetry of magnetic configuration, as well as the leading role of the plasma current in heat confinement. After 2 yr of operation, JET is the world's most successful device in thermonuclear fusion research. Whereas achievement of the final aim (i.e., the confinement of plasma with temperature and d. such that thermonuclear power dominates the heat losses) has never been nearer, results show that plasma behavior is even more complex than initially anticipated and nonlinear physics, leading to turbulence or chaos, is involved. This is likely to modify the JET program, as well as the prospects for a future reactor. Many refs.

L20 ANSWER 140 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

1987:151988 Document No.: PREV198783081038; BA83:81038. PHOTORECEPTORS OF A CYPRINID FISH THE ROACH MORPHOLOGICAL AND SPECTRAL CHARACTERISTICS. DOWNING J E G [Reprint author]; DJAMGOZ M B A; BOWMAKER J K. DEP PURE AND APPLIED BIOL, IMPERIAL COLL, UNIV LONDON, LONDON SW7 2BB, UK. Journal of Comparative Physiology A Sensory Neural and Behavioral Physiology, (1986) Vol. 159, No. 6, pp. 859-868. CODEN: JCPADN. ISSN: 0340-7594. Language: ENGLISH.

AB Structure-function studies were undertaken on cones in the retina of the cyprinid fish, the roach, *Rutilus rutilus*, in order to provide a basis for analysis of colour information by postreceptoral neurones. Measurements were made with two main aims: (i) To determine by microspectrophotometry the absorbance spectra of the photopigments present within the retina, and correlate these with the morphological types of photoreceptor; (ii) To characterize the morphologies of the photoreceptors at both light and electron microscopical levels and determine their relative abundance in the retina. In addition to red-, green-, and blue-sensitive cones, an ultra-violet-sensitive photoreceptor has been found in a sub-population of miniature short single cones. Possible relevance of this finding to vertebrate vision is discussed.

L20 ANSWER 141 OF 149 MEDLINE on STN

2002589160. PubMed ID: 12159590. Return migration from Australia: a case study. Lukomskyj O; Richards P. International migration (Geneva, Switzerland), (1986 Sep) 24 (3) 603-32. Journal code: 9882227. ISSN: 0020-7985. Report No.: CPC-S-11113-34-4; IND-8003825; POP-00162671. Pub. country: Switzerland. Language: English.

AB "The study investigates the departure from Australia of former settlers who arrived during the 1980 calendar year. The 1980 settler arrival cohort [consists] of 75,167 visaed migrants....The study has three main aims: (i) to analyse departures from Australia of the 1980 settler arrival cohort with a view to gauging the success of Australia's immigration program in retaining settlers; (ii) to examine the retention rates of settlers with respect to characteristics...including age, sex, marital status, country of last residence, and settler eligibility category; and (iii) to consider implications of the findings." Australia's present immigration policy is discussed, previous research on

return migration from Australia is summarized, and a detailed analysis of the departure data is presented. "This study found that by August 1984, 12.4 per cent of non-refugee settlers who arrived in Australia during 1980 had departed permanently but that only 0.6 per cent of the 1980 refugee cohort had done so." These figures represent a decline in immigrant departure rates since the 1960s and early 1970s. Small differences in departure rates by place of birth, age, and marital status, which may have demographic consequences if sustained over time, are noted. (SUMMARY IN FRE AND SPA)
excerpt

L20 ANSWER 142 OF 149 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN 1987:440441 Document No.: PREV198784096279; BA84:96279. ENDOSCOPIC SCLEROTHERAPY FOR ESOPHAGEAL VARICES CURRENT STATUS AND FUTURE PROSPECTS. DA BROI G L [Reprint author]; ANDREOLI S; MACOR C; SABLICH R; ZILLI M. SERV GASTROENTEROL, OSPEDALE CIVILE UDINE, ITALY. Friuli Medico, (1986) Vol. 41, No. 6, pp. 383-392.
CODEN: FRMEAA. ISSN: 0016-1535. Language: ITALIAN.

AB The Authors briefly review the most recent literature concerning the endoscopic sclerotherapy of esophageal varices. Technique, methods, **aims** (i.e. prophylaxis of the first variceal hemorrhage, prophylaxis of the rebleeding, emergency, sclerotherapy), and complications are revised. Finally, the policy of the Gastrointestinal Unit of Udine is considered and a schedule of treatment is presented.

L20 ANSWER 143 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN 84003077 EMBASE Document No.: 1984003077. [Paradoxical intervention and insight]. PARADOXE INTERVENTION UND EINSICHT. Fischer G.. Albert-Ludwigs-Universitat, 7800 Freiburg i.Br., Germany. PPmP Psychotherapie Psychosomatik Medizinische Psychologie 33/6 (195-199) 1983.
CODEN: PSMPDR. Pub. Country: Germany. Language: German. Summary Language: English.

AB An indication for paradoxical interventions (p.i.s) as a means of crisis intervention is developed within the framework of an insight-directed and conflict-revealing psychotherapeutical concept. The most important criterion for considering p.i.s is the patient's inability to understand and reflect the descriptive meaning of the therapist's verbal communication. These patients cannot but interpret such statements as an appeal for action. P.i.s should not be used for manipulative **aims**, i.e. aims predetermined by the therapist. P.i.s should be used in order to replace a 'closed' therapeutic relationship by a 'more open' one, which might open up new ways of perceiving and acting to the patient. The author argues that changes of that kind mark a certain level of 'insight', which could possibly develop into more differentiated forms of selfawareness and personal autonomy. Whether they are more likely to improve or inhibit insight-based and autonomous forms of acting should be the crucial criterion for the responsible therapeutic use of p.i.s.

L20 ANSWER 144 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN 82171517 EMBASE Document No.: 1982171517. [The logical basis of laboratory diagnosis]. DIE LOGISCHEN GRUNDLAGEN DER LABORATORIUMSDIAGNOSTIK. Keller H.; Gessner U.. Inst. Klin. Chem. Hamatol., Kantonsspital, CH-9007 St Gallen, Switzerland. Schweizerische Medizinische Wochenschrift 112/26 (914-926) 1982.
CODEN: SMWOAS. Pub. Country: Switzerland. Language: German. Summary Language: English.

AB The diagnostic validity of laboratory analyses compared with other methods (history, direct examination by a physician, histology, radiology etc.) is surprisingly low. This is mainly due to insufficient knowledge of indications and problems in the interpretation of laboratory tests. For a better comprehension of the diagnostic significance of laboratory results we need to understand in detail: the analytic process chosen (in the

broadest sense of the word), the physiology of the analyte (i.e. the parameter under investigation), the potential information content in a particular laboratory result (with respect to the diagnostic problem). Each component/agent involved in the analytic process, including the analyst himself, produces systematic and random errors when analyzing quantitatively. Only the kinds of analyses in which each particle of the analyte is counted individually constitute an exception to this rule. The performance of the analytic method itself is limited by interference or lack of selectivity. A strong influence is exercised by the matrix containing the analyte. Many methods are improperly defined with respect to their analytic aim, i.e. the component indicated by the name of the analysis is not that which is in fact determined. After the sample is taken from the patient it is subject to many influences that will alter the result of the analysis. Interfering factors merge with personal factors, which are in turn dependent on short or long term variations. Special interest focuses on circadian rhythm, the influence of posture, physical strain and other factors. In regard to the biological ranges, intra-individual and interindividual ranges are to be distinguished and can both be set into proportion to analytic variability. The meaning of the resultant ratios can be represented in a 'test assessment chart'. The result of a test may be a binary (yes/no) variable or a continuous variable. Multiple tests require a multi-variate model which is essentially different from that used for treating single analytic results (univariate model). Univariate results can be interpreted by means of decision thresholds. Bayes' theorem is of great importance in this connection. If the results appear as continuous variables, a risk quotient can be calculated which quantifies the risk of sickness depending on the value of the test result. An analogous procedure can be used with multivariate results. The pertinent mathematical and statistical methods are presented and compared. To achieve progress in the field of laboratory medicine we do not need methodological improvements as much as comparative clinical studies. These, however, can only be performed if there is close cooperation between medical ward and clinical laboratory, i.e. between physician and analyst.

L20 ANSWER 145 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

83151466 EMBASE Document No.: 1983151466. Formation and occurrence of bis(chloromethyl)ether and its prevention in the chemical industry. Travenius S.Z.M.. Inst. Environ. Health, Univ. Lund, S-223 62 Lund, Sweden. Scandinavian Journal of Work, Environment and Health 8/Suppl. 3 (86p.) 1982.

CODEN: SWEHDO. Pub. Country: Finland. Language: English.

AB Alpha-chlorinated ethers, especially bis(chloromethyl)ether (BCME) and chloromethyl methyl ether (CMME), are direct-acting inhalation carcinogens. It is above all BCME which presents the greatest lung cancer risk. Pure CMME is only slightly carcinogenic, but technical grade CMME contains 1 to 8% BCME and is thus a dangerous chemical. Both compounds were formerly used as laboratory reagents and industrial chemicals, mainly for chloromethylating purposes and as solvents. After their carcinogenicity was recognized and confirmed, their use was prohibited worldwide. BCME can be formed in gaseous and liquid phases from its precursors, formaldehyde and chloride ions. This reaction requires a very low pH and/or a very low content of water. Formaldehyde and chloride ions (especially hydrochloric acid) are very common chemicals and, as such, can often occur simultaneously both in industrial processing liquors, residues and effluents and in workroom atmospheres. In the air of industrial operations which use formaldehyde or substances from which formaldehyde is formed and/or released, together with chloride ions or substances from which these ions are formed and/or released, BCME was analytically discovered in concentrations ranging from 0.1 to 10 ppb. The majority of these instances were observed in the textile industry, which uses the 'permanent press' process to impart crease and wrinkle resistance to cellulosic fibers. The industries which manufacture, handle, process, and use formaldehyde-based resins, such as urea/formaldehyde,

melamine/formaldehyde, and phenol/formaldehyde resins, were suspected of BCME release or its atmospheric formation because the said resins contain free formaldehyde and because chloride ions are often used as catalysts and fire-protecting additives. For this reason, the present research project was carried out, with the following aims: (i) to determine whether BCME is formed when the aforementioned resins are manufactured, handled, processed, and used, (ii) to ascertain how BCME in air can be destroyed, and (iii) to learn more about the modalities of BCME formation from formaldehyde and chloride ions, especially in the atmosphere. The results can be summed up as follows: (i) no BCME was found in experiments which - with the help of special experimental design and equipment - simulated the conditions under which formaldehyde-based resins are manufactured, handled, processed, and used, (ii) on the conjecture that the probable reason for the absence of BCME was the evolution of condensing water vapor, the BCME mopping-up effect of condensing water vapor was confirmed in specially designed experiments, and (iii) as regards the modalities of BCME formation from its precursors in air, it was found that BCME, being a highly reactive substance, exhibits a marked surface effect in confined spaces, a finding which might help explain the uncontrollable variations of BCME concentrations both in laboratory reactors and in industrial workrooms. Furthermore, there are reasons to suppose that the usual methods of collecting BCME from the air by adsorption for analytical purposes are unreliable as the coadsorbed water can destroy BCME in situ prior to the actual analysis, performed preferably by gas chromatography-mass spectroscopy, if the delay between collection and analysis is too long. It was concluded that laboratory simulation experiments aiming to determine how much BCME can be formed from certain concentrations of formaldehyde and chloride ions are unreliable because they do not consider the effect of the reactor volume, the reactor surface area, the reactor surface reactivity, as well as the effect of mass transport phenomena from the air volume bulk to the walls. It was pointed out that the present threshold limit value of one part per billion for BCME might not be quite safe. Calculations showed that the probable carcinogenic concentrations for workers in the chemical industry that used BCME and CMME may have been between 10 and 800 ppb (more often between 10 and 100 ppb). If these figures are compared with values of 0.1 to 10 ppb, ie, the BCME concentrations that can form from formaldehyde and chloride ions in air, it can be seen that there is no sufficient margin of safety. In order to assess the industrial and environmental risks of a possible BCME formation in air more correctly, empirical equations ought to be derived which can be used for calculating the potential BCME concentrations in the atmosphere of the workrooms on the basis of seven variables, namely, the concentrations of formaldehyde, chloride ions and water vapor, the temperature, the volume of the space in question, the area of the surfaces which are in contact with the BCME-containing air, and the mass transfer factor.

L20 ANSWER 146 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

79200376 EMBASE Document No.: 1979200376. Tensions between psychotherapy and sociotherapy. Kortmann F.A.M.. Psychiat. Univ. Klin., Groningen, Netherlands. Tijdschrift voor Psychiatrie 21/6 (361-372) 1979. CODEN: TPSYB3. Pub. Country: Netherlands. Language: Dutch. Summary Language: English.

AB The treatment ward of a psychiatric hospital can be conceived as 'a system', that should offer patients the opportunity to pursue their aim, i.e., to get well. To reach that goal a certain security and pressure level are needed. Both nursing staff and psychotherapists unremittingly have to make a very difficult choice which position to take with regard to that security and pressure level required. Psychotherapists, according to Rapoport, are more inclined to a permissive attitude. Sociotherapists or nursing staff are more apt to take up an attitude of reality confrontation. Sometimes this leads to tension within the team. When such a tension is felt, both disciplines should try to formulate a collective point of view with regard to the most optimal level

of pressure and the security for the patient or the group. If a joint position has been defined both disciplines should try to realize this optimal climate, each using their own specific expertise.

L20 ANSWER 147 OF 149 MEDLINE on STN
77137983. PubMed ID: 321214. [Prosthetic measures with reference to the temporomandibular joint and the masticatory pathway]. Gelenkbezügliches oder kaubahnbezogenes Vorgehen bei prothetischen Massnahmen. Bottger H. Deutsche zahnärztliche Zeitschrift, (1977 Feb) 32 (2) 84-6. Journal code: 2984745R. ISSN: 0012-1029. Pub. country: GERMANY, WEST: Germany, Federal Republic of. Language: German.

AB The gnathological **aims**, i.e. consideration of anatomy, histology, physiology and pathology of the stomatognathic system and therapy on the basis of accurate examination, diagnosis and treatment planning, have been known for a long time. To try and achieve such aims is a natural demand in any prosthetical measure.

L20 ANSWER 148 OF 149 MEDLINE on STN
76118472. PubMed ID: 1213242. Main results of recent Hungarian family planning studies. Klinger A. Reproduccion, (1975 Apr-Jun) 2 (2) 147-61. Journal code: 0427161. ISSN: 0303-5220. Pub. country: ENGLAND: United Kingdom. Language: English.

AB The Hungarian Central Statistical Office has carried out five different sample surveys in the last fifteen years for investigating more closely questions of fertility, family planning and birth control. The study summarizes the main findings. Some of these surveys applied retrospective methods to investigate fertility, family planning and birth control behaviour of females in the past. Surveys of another type tried to reveal in perspective manner, with longitudinal observation of the couples, changes which took place in family planning and birth control ideas and practice. The main purpose of recent population policy measures was to ensure simple reproduction of the population. As a result of the measures taken in 1974 to increase the number of births the birth-rate went up significantly. This increase (30% as compared to 1973) appeared primarily for the second birth which constitutes 62% of the increment in births in 1974, 31% is accounted for by an 11% increase in the first births. The number of third births rose by 13% and their relative share remained 10%. The number of fourth and further births did not increase and their relative share decreased by 1%. Fertility data of 1974 show that the birth-rate increase was not in line with the intended **aim**, i.e. it was not the number of third births that increased. The net reproduction coefficient showing long-range growth of the population calculated with birth-rate of 1974, has developed favourably, it was over unity for the first time since 1958 (it was about 1.05). The birth-rate increased in 1974 in every age-group of females. The largest increase (19%) occurred for females 25-34 years old. Though it was 16% also for females under 24. According to a sample survey investigating the number of intended children by married females under 35 it did not increase as compared to data of previous surveys of similar character. The differences is that the proportion of those who wished to have two children increased, while of those who wished to have one or three and more children decreased. The study deals also with changes in the relative shares of intended children by females under 35 who are now to be married. In the concluding part of the study the females' attitude to birth control and changes in this field are discussed.

L20 ANSWER 149 OF 149 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

74054146 EMBASE Document No.: 1974054146. [Principles of progressive epidemiologic studies on the evaluation of idiopathic hypertension as a risk factor in ischemic cardiac disease]. GRUNDLAGEN PROGRESSIVER EPIDEMIOLOGISCHER UNTERSUCHUNGEN ZUR EINSCHÄTZUNG DER ESSENTIELLEN HYPERTONIE ALS RISIKOFAKTOREN DER ISCHÄMISCHEN HERZKRANKHEIT. Askanas Z.; Rywik S.; Liszewska Pfejfer D.. Inst. Kardiol., Med. Akad., Warschau, Poland. Zeitschrift für die Gesamte Innere Medizin und Ihre Grenzgebiete

28/14 (213-217) 1973.

CODEN: ZGIMAL. Language: German.

AB The methodical principles of the prospective epidemiological investigation for the evaluation of the essential hypertension as factor risk of the ischaemic heart disease are demonstrated. Two phases of work are considered: at the first phase the entire population at the age of 40 to 55 years is exposed to a cross section examination, whereas in the second stage selected groups are exposed to an observation and treatment of the hypertension lasting several years. In this article the methods of a cross section examination, the prerequisites for the second phase of examination, methods of treatment in persons who are exposed to a further observation as well as the final aims of the examination are described. As final **aims**, i.e. parameters which should be registered in all groups, the authors propose the following: acute myocardial infarction, cerebral apoplexy, all cases of death and ischaemic heart disease. These data form the basis for the test of the proposed hypothesis on the existence of a correlation between arterial hypertension and coronary disease, on the casual connections of this correlation as well as on the influence of the treatment of hypertension on the incidence of the ischaemic heart disease.

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	416.64	416.85
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-21.48	-21.48

STN INTERNATIONAL LOGOFF AT 15:44:27 ON 12 JUN 2004